

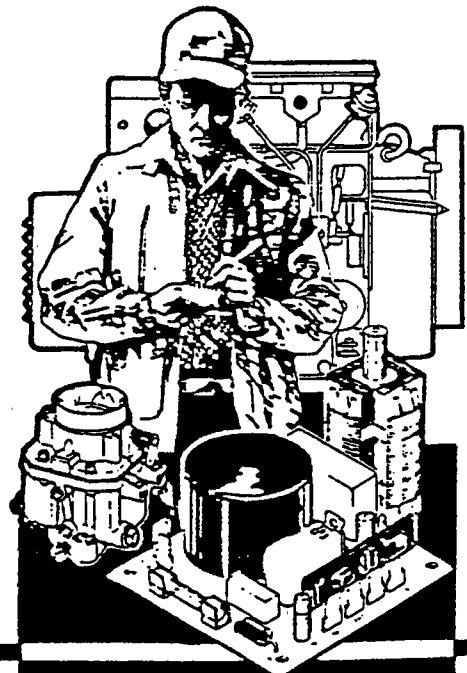
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# Onan

## Parts Manual

### MME

## Marine GenSet



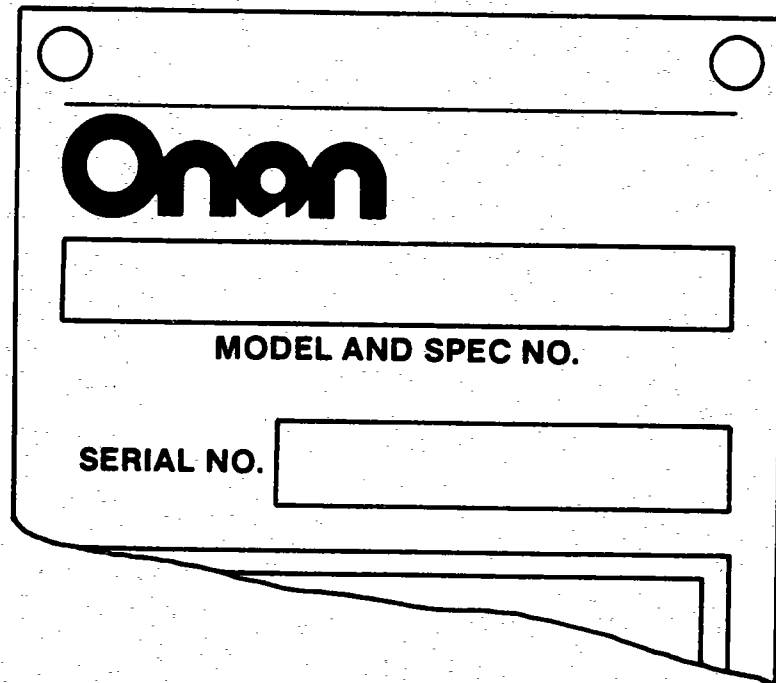
**Onan Service Parts**

**918-0200**  
**5-89 (SPEC A-C)**  
Replaces 1-89 (SPEC A-B)  
Printed in U.S.A.

## General Information

For parts or service, contact the dealer from whom you purchased this equipment or refer to your Nearest Authorized Onan Parts and Service Center.

To avoid errors or delay in filling your parts order, always give the MODEL, SPEC NO. and SERIAL NO. from the Onan nameplate.

A rectangular form with a black border, designed to look like a nameplate. It features the Onan logo at the top. Below the logo is a large rectangular box for the model and specification number. Below that is a smaller rectangular box for the serial number, preceded by the text "SERIAL NO.". The bottom right corner of the form is folded over. Two small circles are located at the top left and top right corners of the form.

**Onan**

**MODEL AND SPEC NO.**

**SERIAL NO.**

M-1149

For handy reference, insert "YOUR" nameplate information in the spaces above.

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## Introduction

This Parts Manual applies to the Standard Sets Listed below. The illustrations are arranged in groups of related items, and each part or assembly is identified by a Reference Number. All parts illustrated are typical, and unless otherwise mentioned in the description column the parts are interchangeable between models.

These typical illustrations are subject to change and reflect only the latest replacement parts arrangement. The Right and Left sides of the Unit are determined by FACING the FRONT of the Set.

This Parts Manual includes a Numerical Index which is located at the back of the manual. All the Part Numbers are arranged in \_\_\_\_\_ Numeric order. Location page numbers are provided for each part number. \_\_\_\_\_

## Set Data Table

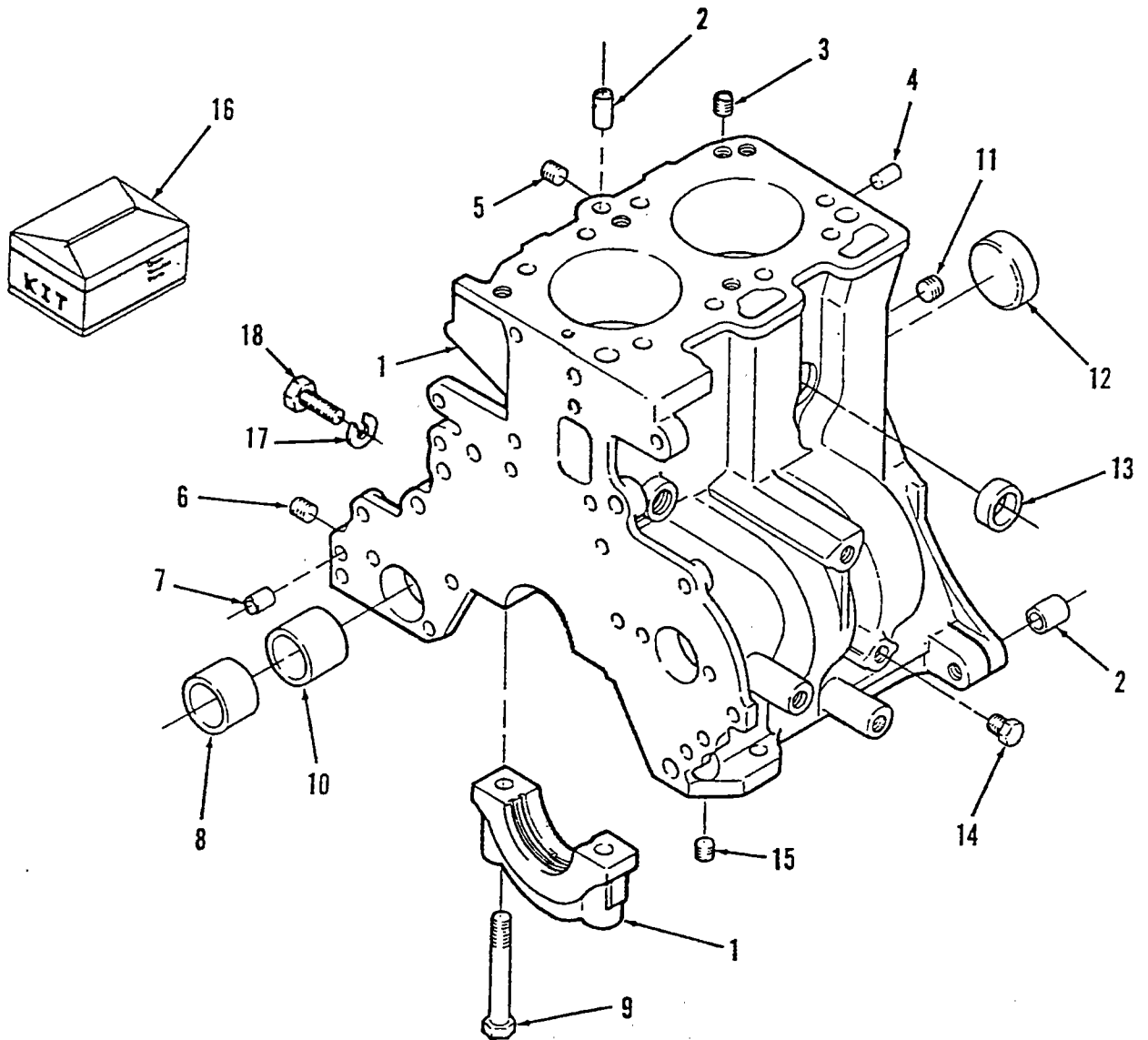
MODEL IDENTIFICATION	RATING	RPM RATING	BATTERY VOLTAGE
9.0 MME - */ # @	9,000 WATTS	1800 RPM	12 VDC
8.0 MME - */ # @	8,000 WATTS	1800 RPM	12 <del>2</del> VDC
6.5 MME - */ # @	6,500 WATTS	1800 RPM	12 VDC

## Electrical Data Table

*VOLTAGE CODE	VOLTS	HERTZ	WIRE	PHASE	NOTES
A-1	120	60	2	1	
B-3	120/240	60	3	1	

- \* - Voltage Codes follow Model Letter designations.
- # - Specification Number: Number 1 is Standard, all others indicate variations.
- @ - Specification Letter: Letter advances ( A to B, B to C, etc) with major manufacturing changes.
- + - The Stators are Reconnectible.

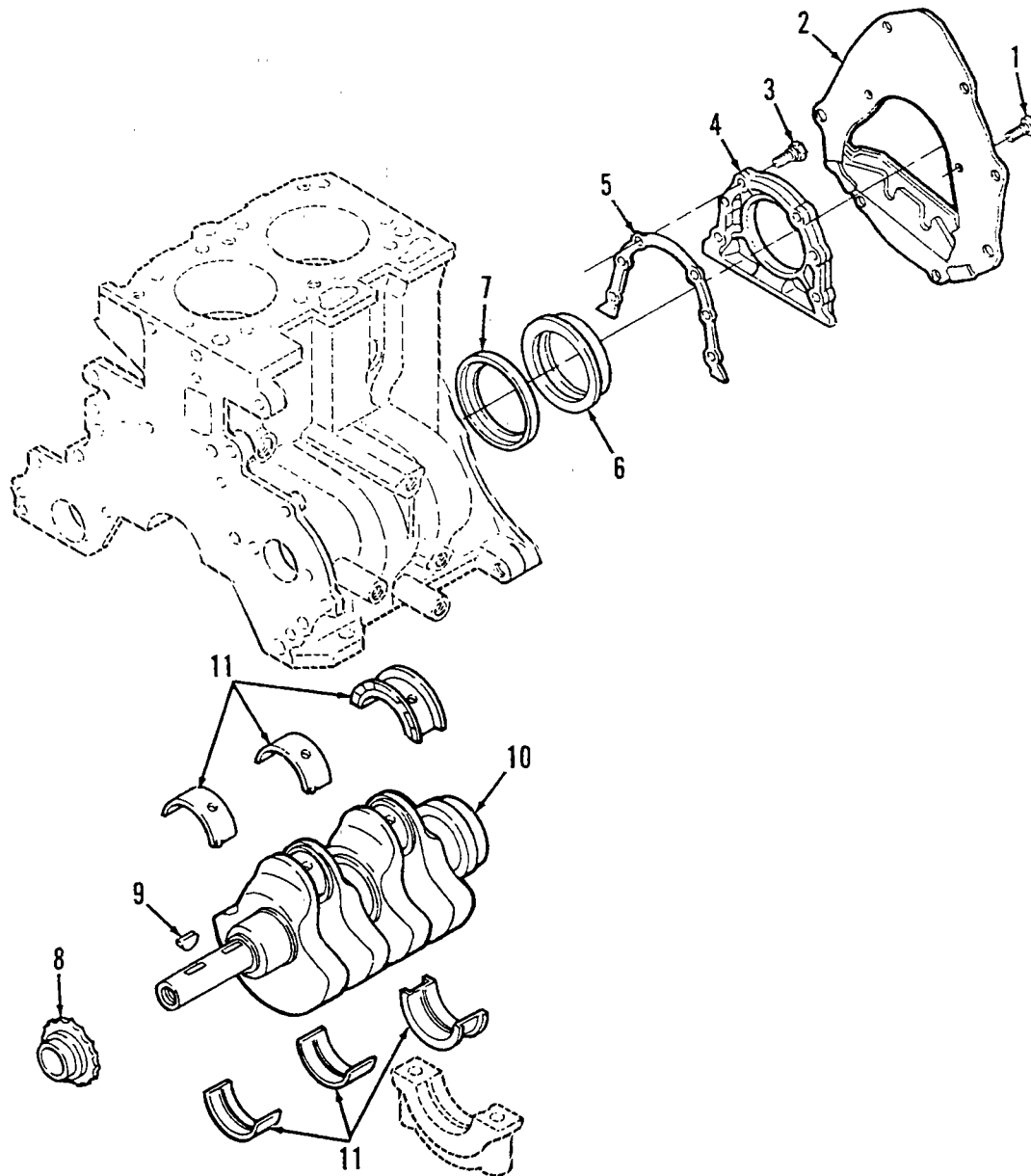
## Cylinder Block



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-3069	1	Block, Cylinder (Includes Main Bearing Caps and Parts Marked *)	10	186-3077	2	*Bearing - Rear
2	186-3070	4	*Bushing	11	186-3078	1	*Plug
3	186-3071	1	*Orifice	12	186-3079	1	*Cap
4	186-3039	2	*Pin, Dowel	13	186-3080	3	*Cap
5	186-3072	1	*Plug	14	186-3081	1	*Plug
6	186-3073	1	*Plug	15	186-3082	1	*Plug
7	186-3074	2	*Bushing	16	186-3000	1	Kit, Gasket - Engine
8	186-3075	2	*Bearing - Front	17	856-0010	1	Washer, Lock (10M)
9	186-3076	6	*Bolt, Hex Head	18	800-2084	1	Screw, Cap - Hex Head (M10 x 1.5 x 16MM)

\* - Parts included in Cylinder Block.

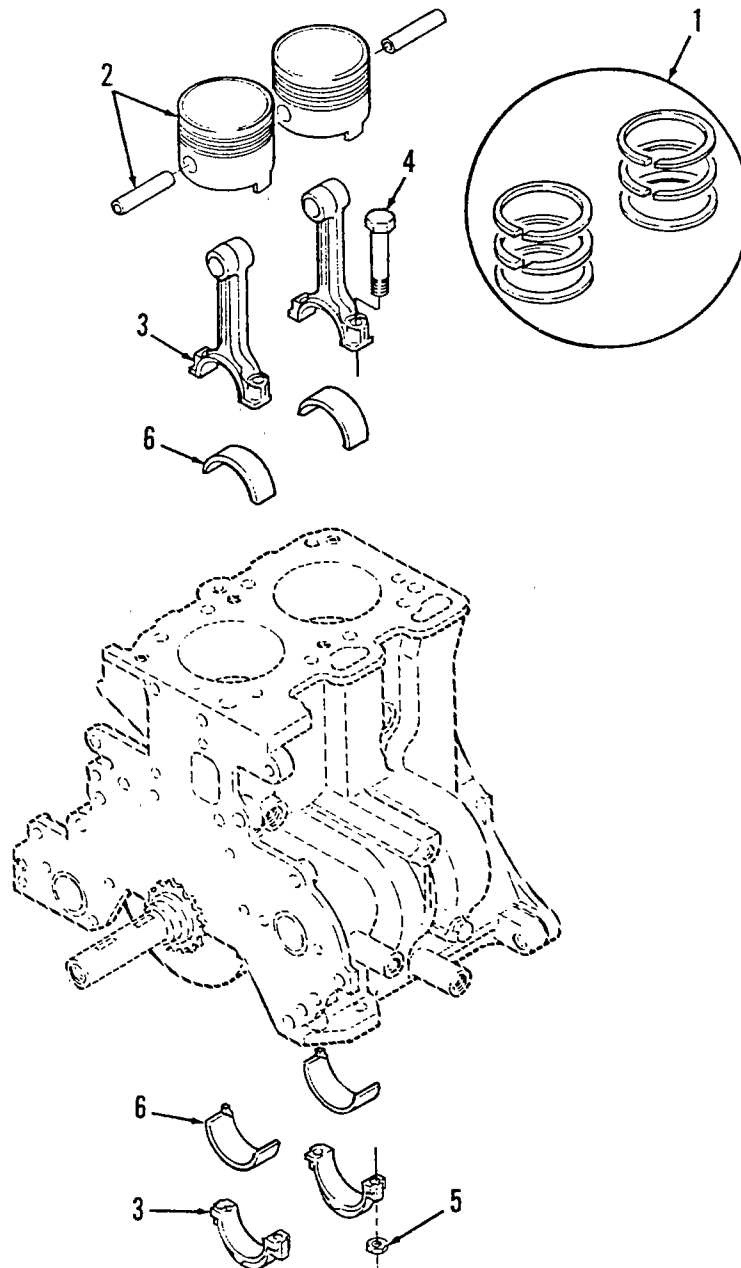
# Crankshaft and Rear Seal



167A

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-3093	2	Bolt, Hex Head (M8 x 12MM)	8	186-3161	1	Sprocket, Crankshaft
2	186-3092	1	Plate, Rear	9	186-3121	1	Key
3	186-3064	4	Bolt, Hex Head - with Lock Washer (M6 x 25MM)	10	186-3122	1	Crankshaft
4	186-3062	1	Case	11	186-3065	1	Set, Bearing - Crankshaft
5	186-3014	1	Gasket				Standard
6	186-3013	1	Seal, Oil		186-3066	1	0.25 Undersize
7	186-3063	1	Ring		186-3067	1	0.50 Undersize
					186-3068	1	0.75 Undersize

## Piston, Rings and Rods



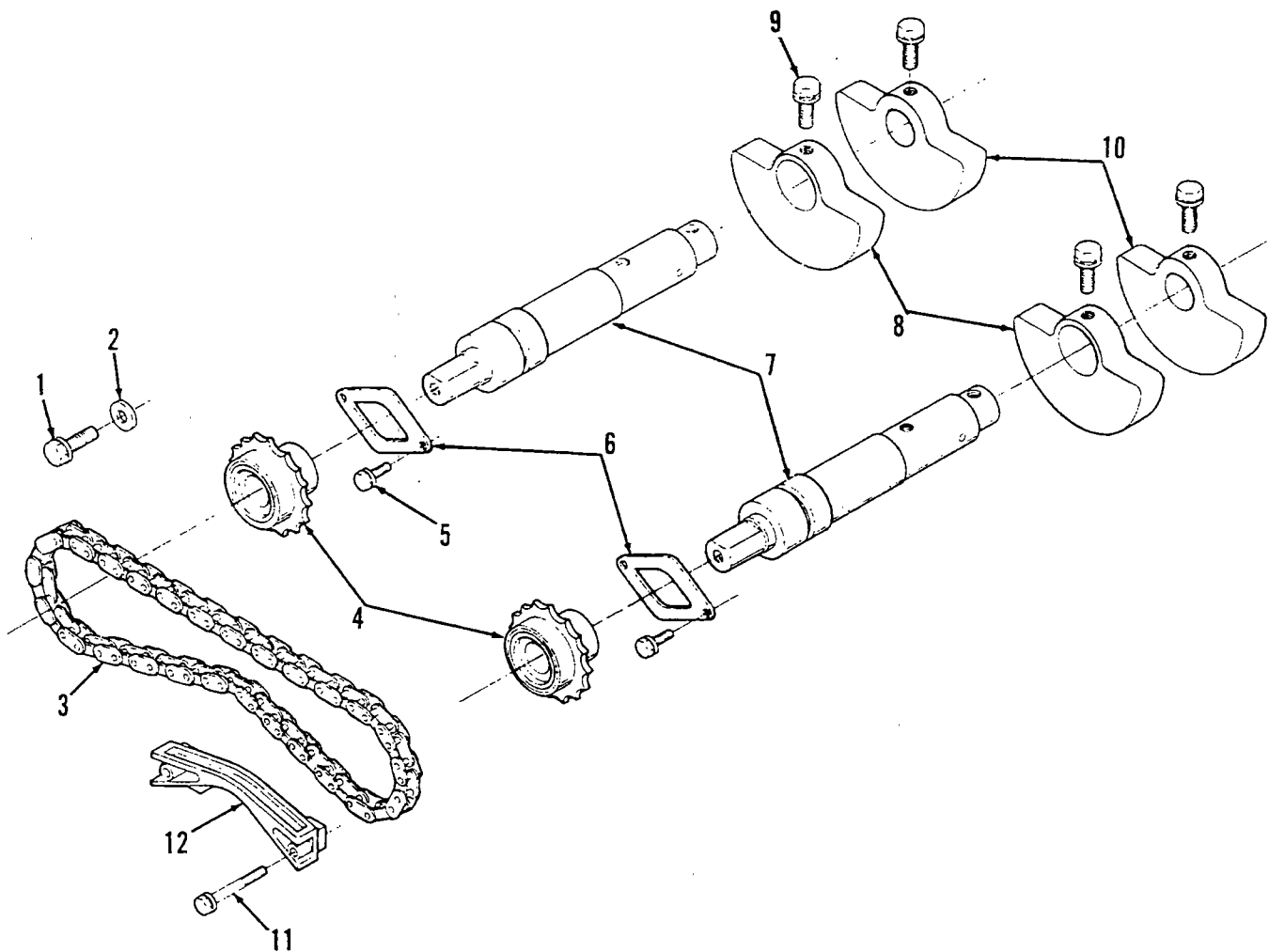
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REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-3099	1	Set, Ring	3	186-3109	2	Rod, Connecting (Includes
	186-3100	1	Standard				Rod Caps and Parts Marked *)
	186-3101	1	0.25 Oversize	4	186-3110	4	*Bolt, Hex Head
	186-3102	1	0.50 Oversize	5	186-3111	4	*Nut, Hex
	186-3103	1	0.75 Oversize	6			Set, Bearing
	186-3104	1	1.00 Oversize		186-3112	1	Standard
2	186-3105	2	Piston with Pin		186-3113	1	0.25 Undersize
	186-3106	2	Standard		186-3114	1	0.50 Undersize
	186-3107	2	0.25 Oversize		186-3115	1	0.75 Undersize
	186-3108	2	0.50 Oversize				
		2	0.75 Oversize				
		2	1.00 Oversize				

\* - Parts included with Connecting Rod



# Balancer

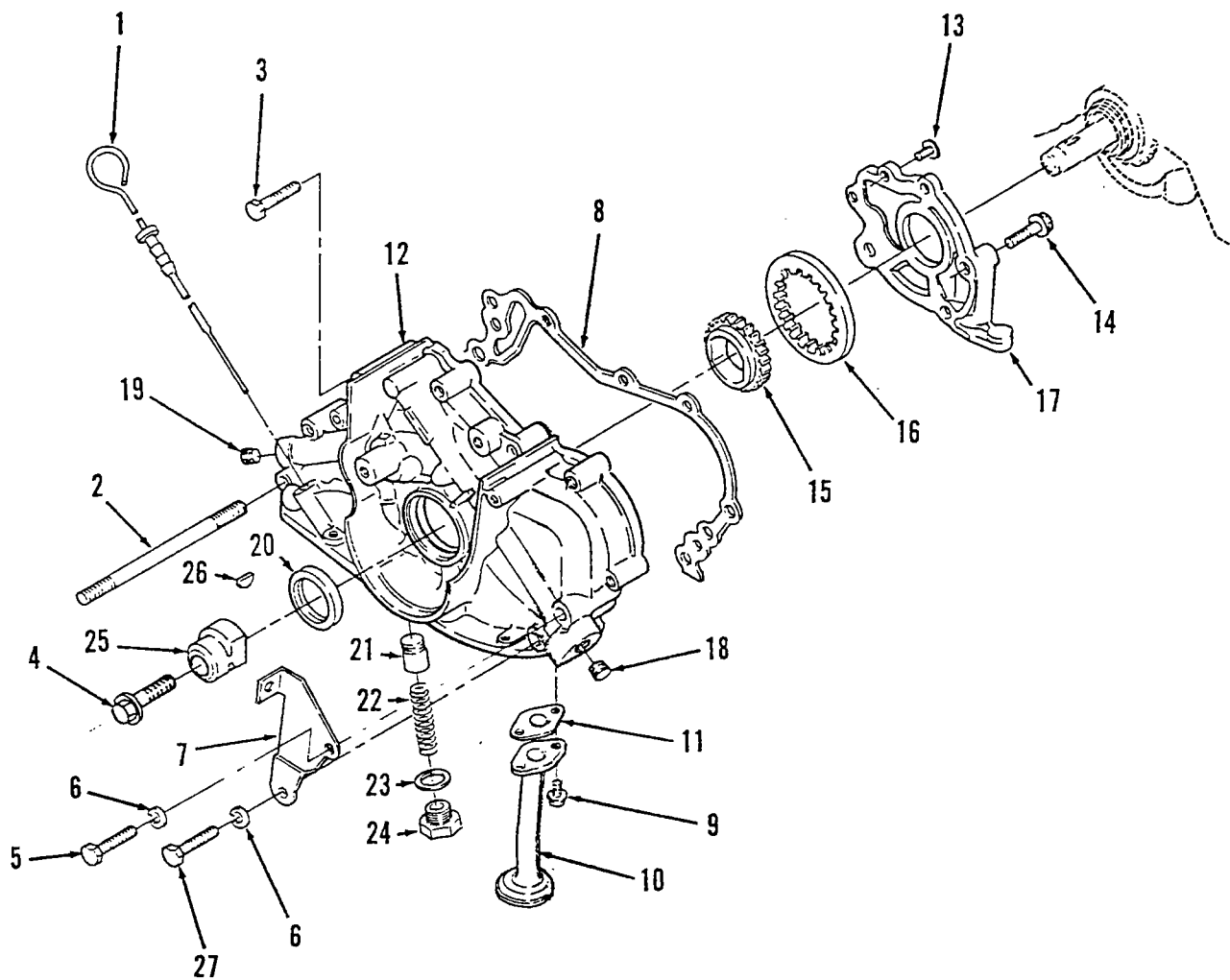


1738

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-3150	1	Bolt, Hex Head (M8 x 18MM)
2	186-3151	2	Washer, Flat
3	186-3152	1	Chain
4	186-3153	2	Sprocket
5	186-3154	4	Screw, Hex Head (M6 x 16MM)
6	186-3155	2	Plate, Thrust

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
7	186-3156	2	Shaft
8	186-3157	2	Weight - Front
9	186-3158	4	Bolt, Hex Head
10	186-3159	2	Weight - Rear
11	186-3031	2	Bolt, Hex Head (M6 x 25MM)
12	186-3160	1	Guide

## Dipstick and Oil Pump

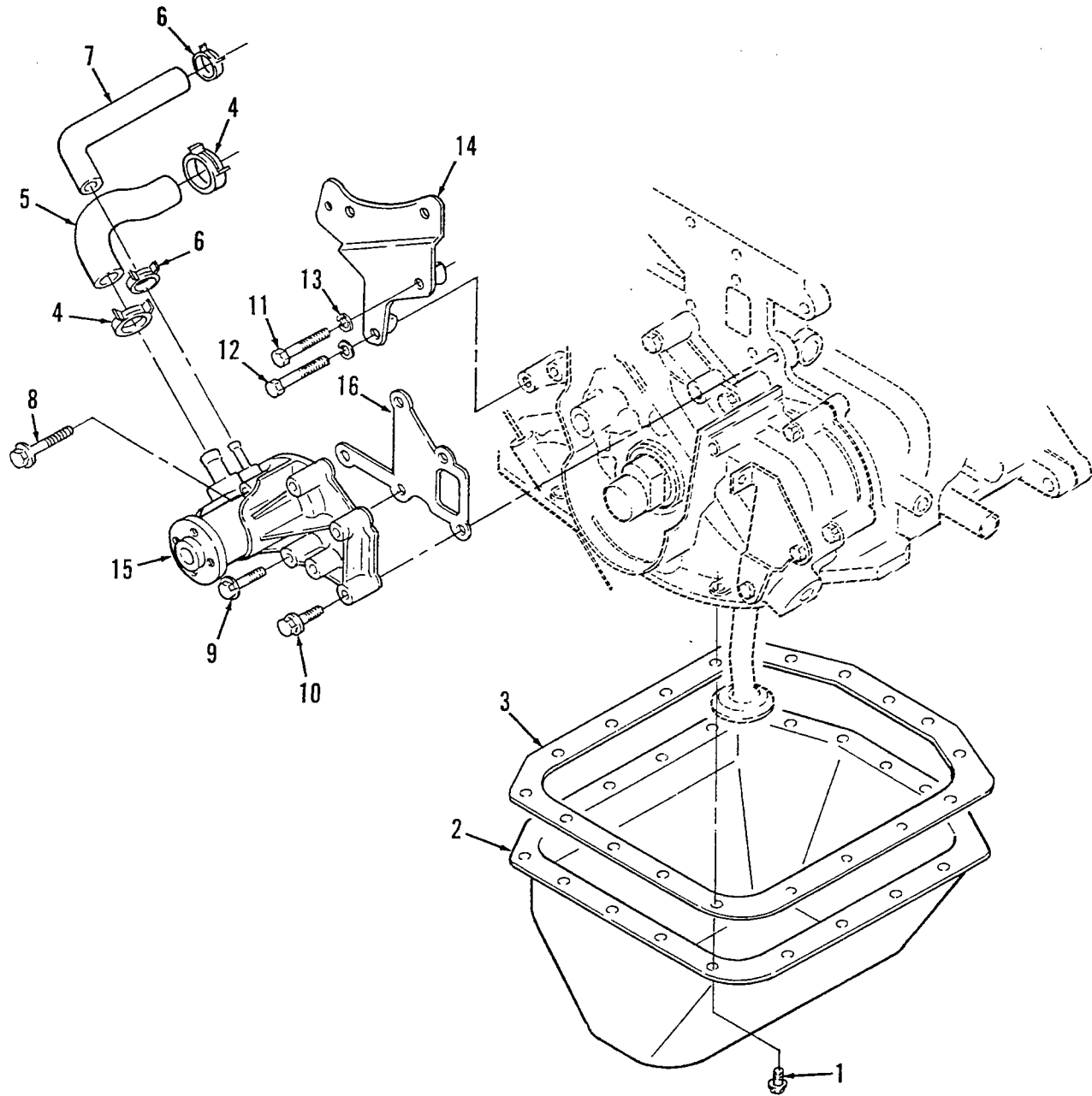


# Dipstick and Oil Pump

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-3166	1	Dipstick	14	186-3168	2	*Bolt, Hex Head (M6 x 30MM)
2	520-2209	1	Stud (M8 x 110MM)	15	186-3169	1	*Gear, Pump - Inner
3	186-3178	3	Bolt, Hex Head (M8 x 60MM)	16	186-3170	1	*Gear, Pump - Outer
4	186-3179	4	Bolt, Hex Head (M8 x 38MM)	17	186-3171	1	*Cover, Pump
5	800-2067	2	Screw, Cap - Hex Head (M8 x 1.25 x 70MM)	18	186-3172	1	*Plug
6	850-2008	2	Washer, Lock - Spring (M8)	19	186-3173	1	*Plug
7	130-3059	1	Bracket, Mtg - Belt Guard	20	186-3012	1	*Seal, Oil
8	186-3015	1	Gasket	21	186-3174	1	*Plunger
9	186-3095	2	Bolt, Hex Head - with Lock Washer (M8 x 16MM)	22	186-3175	1	*Spring
10	186-3094	1	Screen	23	186-3176	1	*Gasket
11	186-3016	1	Gasket	24	186-3177	1	*Plug
12	186-3167	1	Case (Includes Parts Marked *)	25	186-3120	1	Shaft, Drive - Oil Pump
13	186-3154	4	*Screw, Machine, Round Head (M6 x 16MM)	26	186-3121	1	Key
				27	800-2068	1	Screw, Cap - Hex Head (M8 x 1.25 x 75MM)

\* - Parts included with Case.

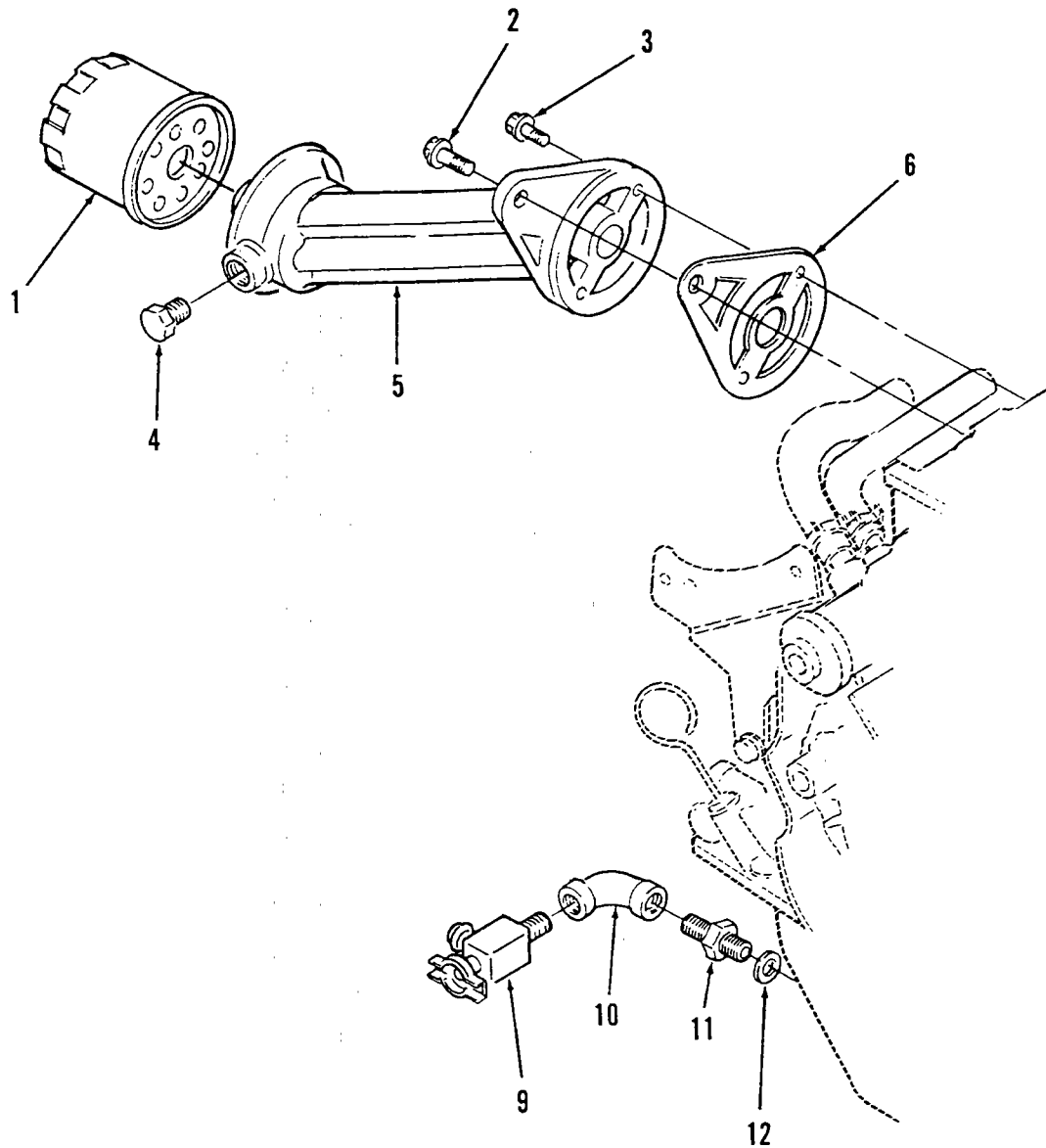
# Water Pump and Oil Pan



186A

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-3096	18	Bolt, Hex Head - with Lock Washer (M6 x 12MM)	11	800-2071	1	Screw, Cap - Hex Head (M8 x 1.25 x 90MM) - Spec A, B
2	186-3097	1	Pan, Oil (Includes Gasket)	12	800-2072	1	Screw, Cap - Hex Head (M8 x 1.25 x 100MM) - Spec A, B
3	186-3018	1	Gasket	13	850-2008	2	Washer, Lock - Spring (M8)
4	186-3187	2	Clamp, Hose	14	151-0628	1	Bracket, Mounting - Governor - Spec A, B
5	186-3186	1	Hose	15	186-3182	1	Pump, Water (Includes Gasket)
6	186-3189	2	Clamp, Hose	16	186-3011	1	Gasket
7	186-3188	1	Hose				
8	186-3183	1	Bolt, Hex Head (M8 x 70MM)				
9	186-3184	2	Bolt, Hex Head (M8 x 45MM)				
10	186-3179	2	Bolt, Hex Head (M8 x 38MM)				

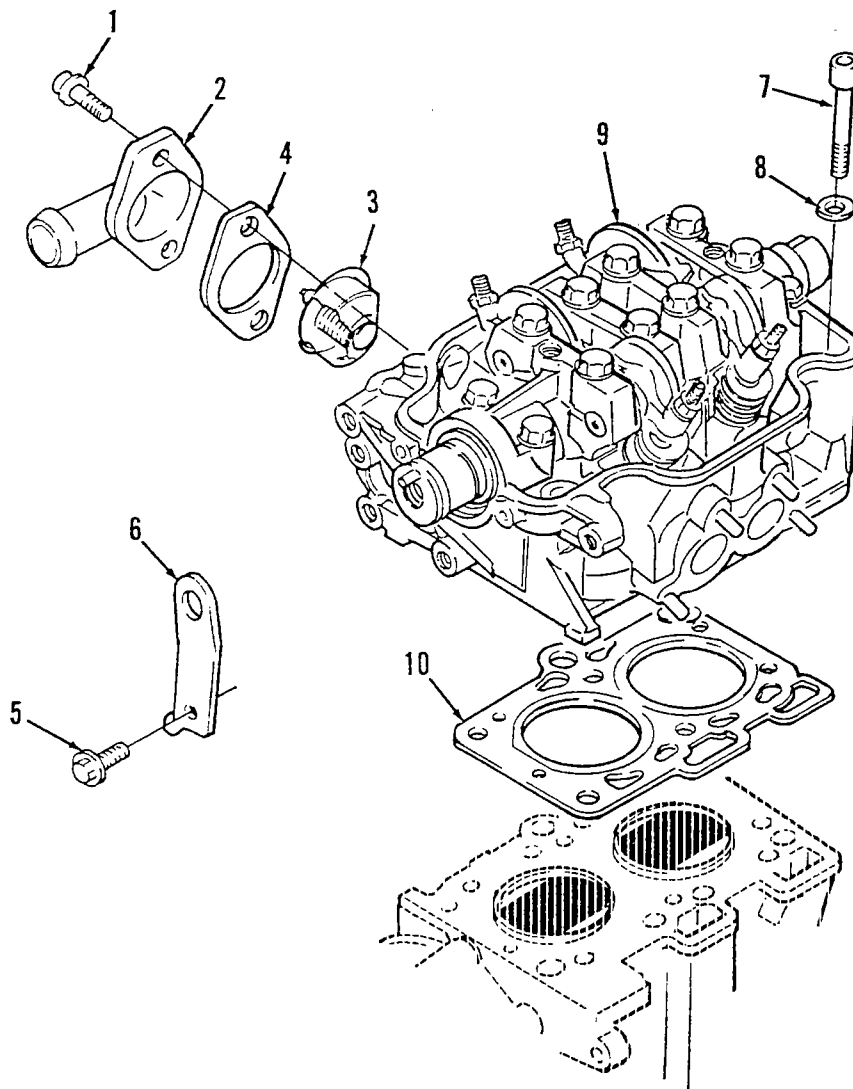
## Oil Filter and Oil Drain



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-3162	1	Filter, Oil
2	186-3059	1	Bolt, Hex Head (M10 x 25MM)
3	186-3060	1	Bolt, Hex Head (M8 x 22MM)
4	186-3083	1	Plug
5	186-3061	1	Bracket

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
6	186-3010	1	Gasket
9	504-0092	1	Valve, Drain
10	502-0263	1	Elbow, Pipe - 90 deg
11	102-1326	1	Adapter
12	102-1329	1	Gasket

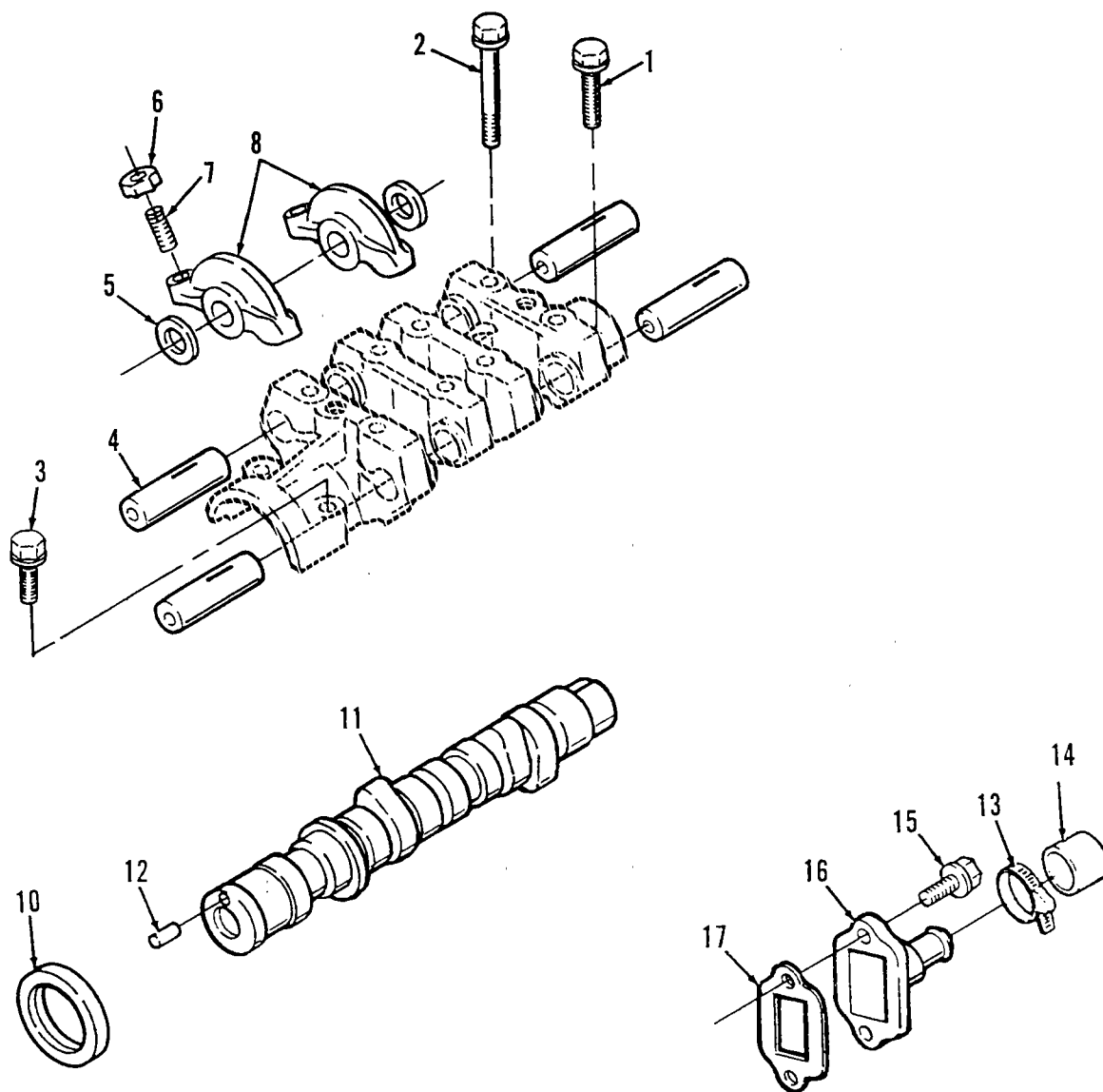
# Thermostat and Head Gasket



174A

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-3051	2	Bolt, Hex Head - with Lock Washer (M8 x 25MM)	6	186-3056	1	Hanger
2	186-3052	1	Fitting, Outlet	7	186-3027	6	Bolt, Socket Head
3	186-3053	1	Thermostat (Includes Gasket)	8	186-3028	6	Washer
4	186-3005	1	Gasket	9	186-3029	1	Head, Cylinder (See Separate Page for Components)
5	186-3057	1	Bolt, Hex Head (M8 x 10MM)	10	186-3009	1	Gasket

# Camshaft

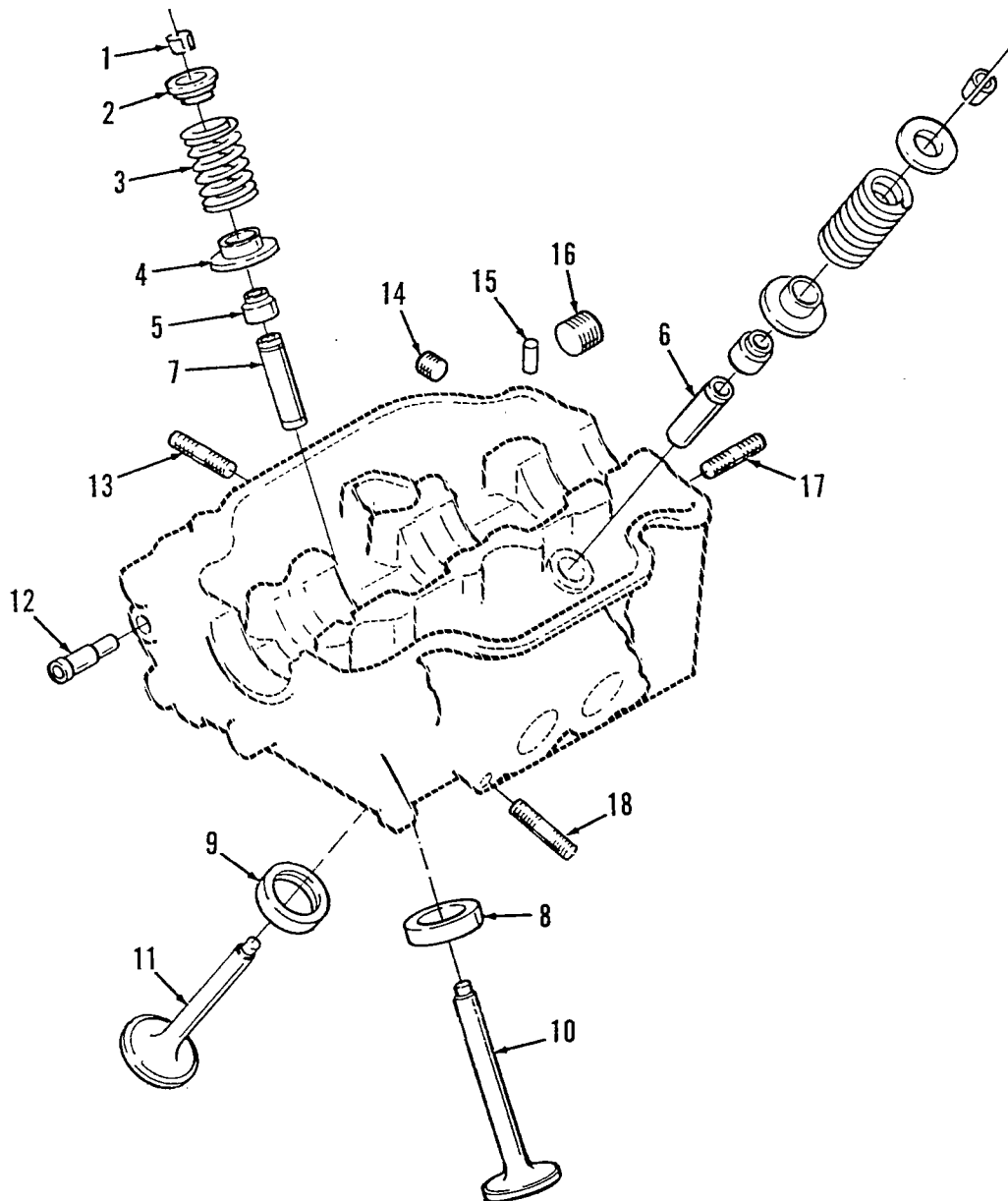


REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-3030	8	Bolt, Hex Head
2	186-3031	2	Bolt, Hex Head (M6 x 25MM)
3	186-3032	2	Bolt, Hex Head (M8 x 28MM)
4	186-3033	4	Standard
	186-3219	4	Oversize
5	186-3132	4	Washer, Waved
6	186-3130	4	Nut, Hex
7	186-3131	4	Screw, Adjusting
8	186-3133	2	Arm, Rocker - Front

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
9	186-3134	2	Arm, Rocker - Rear
10	186-3008	1	Seal, Oil
11	186-3137	1	Camshaft (Includes Pin)
12	186-3123	1	Pin, Dowel
13	503-1136	2	Clamp, Hose
14	132-0222	2	Cap, Rubber
15	186-3055	2	Bolt, Hex Head - with Lock Washer (M8 x 20MM)
16	186-3054	1	Joint
17	186-3007	1	Gasket

171A

# Cylinder Head



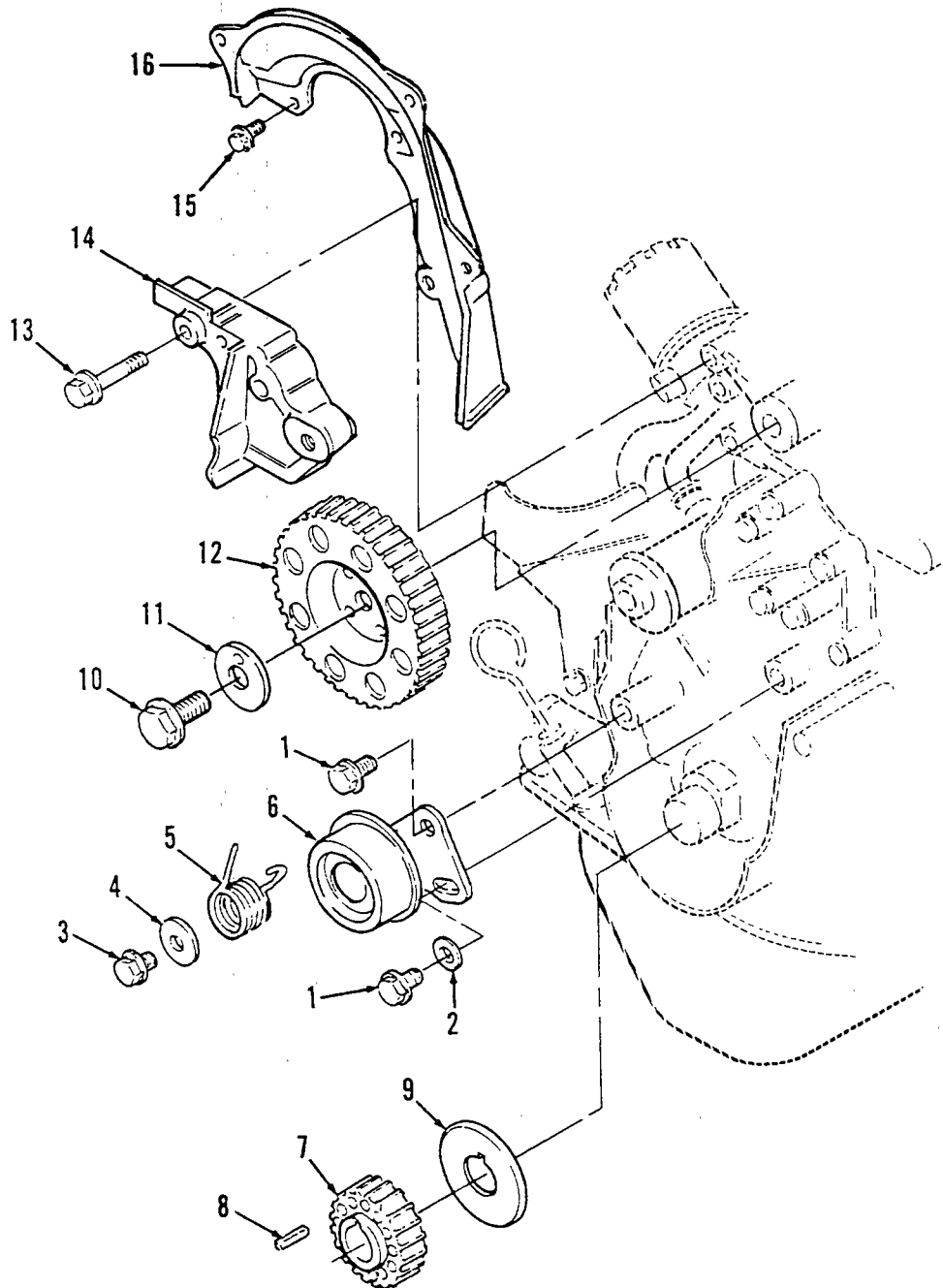
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REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-3135	8	Lock, Valve Spring
2	186-3136	4	Retainer
3	186-3142	4	Spring
4	186-3144	4	Seat
5	186-3006	4	Seal
6			*Guide, Valve - Exhaust
	186-3034	2	Standard
	186-3035	2	0.25 Oversize
	186-3036	2	0.50 Oversize
7			*Guide, Valve - Intake
	186-3041	2	Standard
	186-3042	2	0.25 Oversize
	186-3043	2	0.50 Oversize
8			*Seat, Valve - Intake
	186-3048	2	Standard
	186-3049	2	0.60 Oversize

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
9			*Seat, Valve - Exhaust
	186-3046	2	Standard
	186-3047	2	0.60 Oversize
10	186-3143	2	Valve, Intake
11	186-3146	2	Valve, Exhaust
12	186-3045	1	*Pipe
13	186-3037	1	*Stud
14	186-3038	1	*Plug
15	186-3039	6	*Pin, Dowel
16	186-3040	1	*Plug
17	186-3044	2	*Stud
18	186-3050	4	*Stud
	186-3029		Head Assy (Includes*)



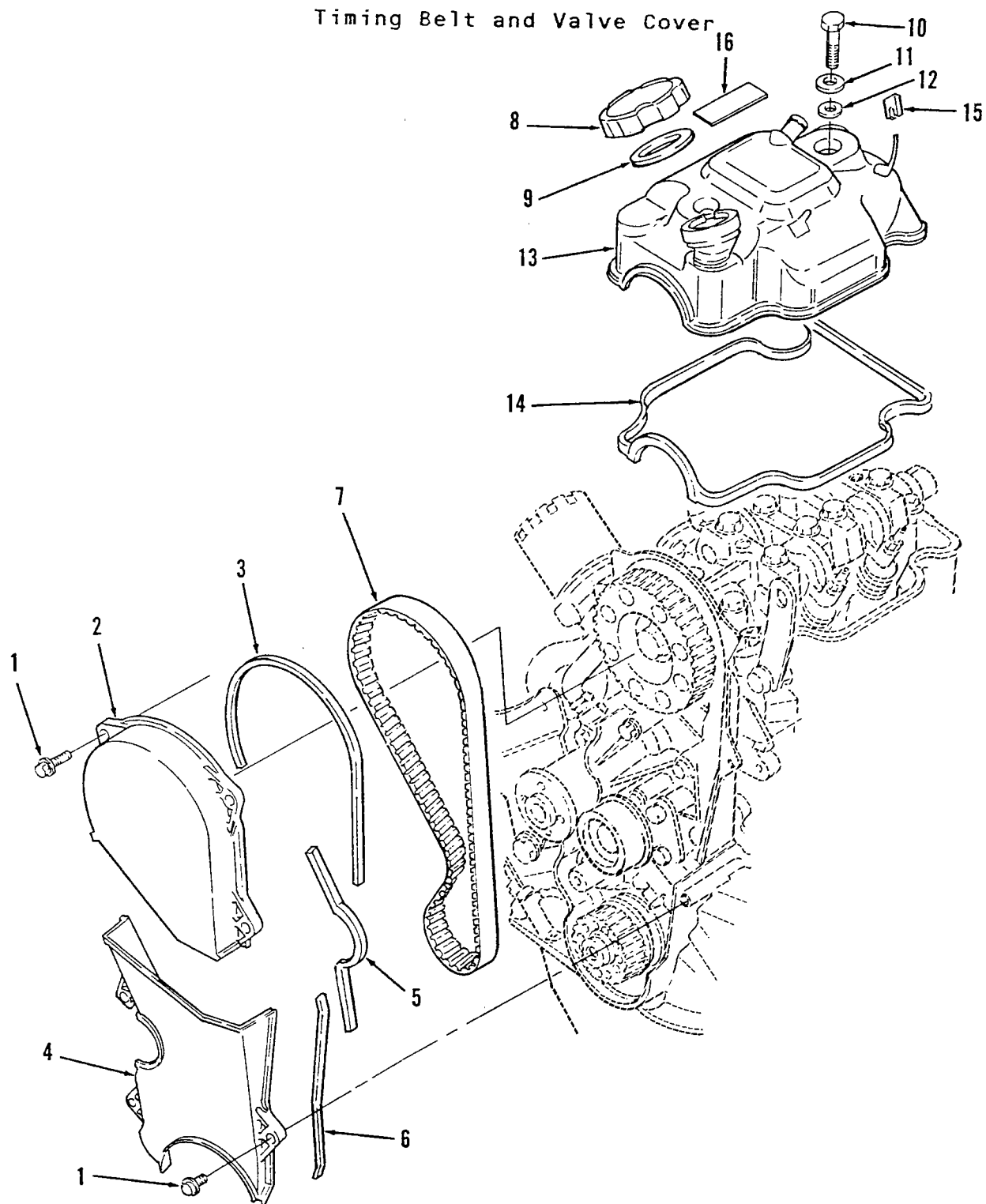
# Timing Gears



166A

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-3141	2	Bolt, Hex Head (M8 x 16MM)	9	186-3149	1	Flange
2	186-3198	1	Washer, Flat (M8)	10	186-3126	1	Bolt, Hex Head (M12 x 30MM)
3	186-3093	1	Bolt, Hex Head (M8 x 12MM)	11	186-3127	1	Washer
4	186-3138	1	Washer, Flat (M8)	12	186-3128	1	Sprocket, Camshaft
5	186-3139	1	Spring	13	186-3164	3	Bolt, Hex Head (M8 x 45MM)
6	186-3140	1	Tensioner	14	186-3163	1	Bracket
7	186-3147	1	Sprocket, Crankshaft (Includes Pin)	15	186-3087	3	Bolt, Hex Head (M6 x 12MM)
8	186-3148	1	Pin	16	186-3086	1	Cover, Timing - Rear

# Timing Belt and Valve Cover



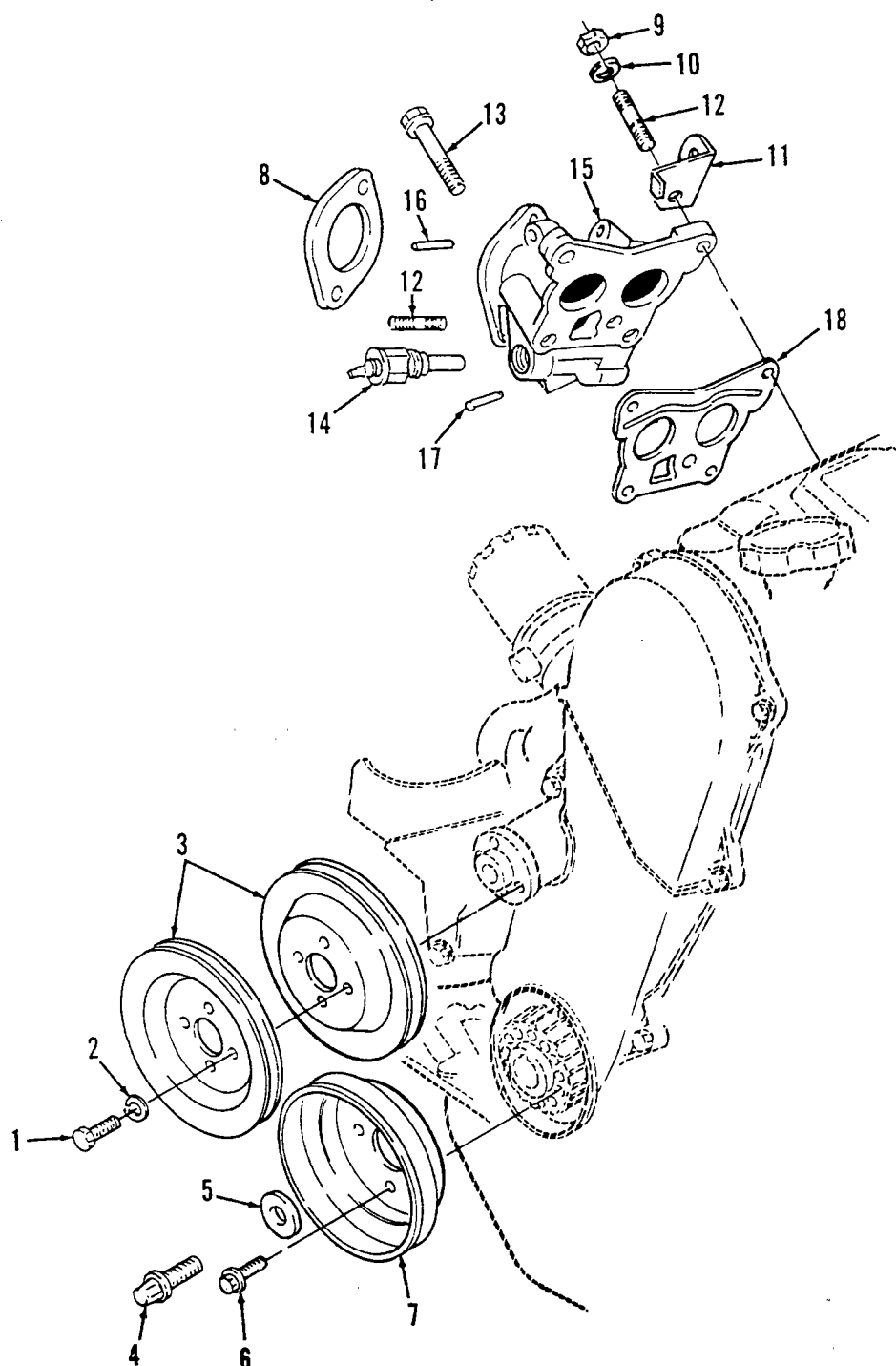
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REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-3088	6	Bolt, Hex Head (M6 x 18MM)
2	186-3084	1	Cover, Timing - Upper (includes Gasket)
3	186-3085	1	Gasket
4	186-3089	1	Cover, Timing - Lower (Includes Gaskets)
5	186-3090	1	Gasket
6	186-3091	1	Gasket
7	186-3129	1	Belt, Timing
8	186-3022	1	Cap (Includes Packing)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
9	186-3023	1	Packing
10	186-3020	2	Bolt, Hex Head (M8 x 40MM)
11	186-3021	2	Washer
12	186-3002	2	Seal, Oil
13	186-3024	1	Cover (Includes Gasket, Clamp and Label)
14	186-3004	1	Gasket
15	186-3026	1	Clamp, Cable
16	186-3025	1	Label

17 503-1274 1 Breather Hose

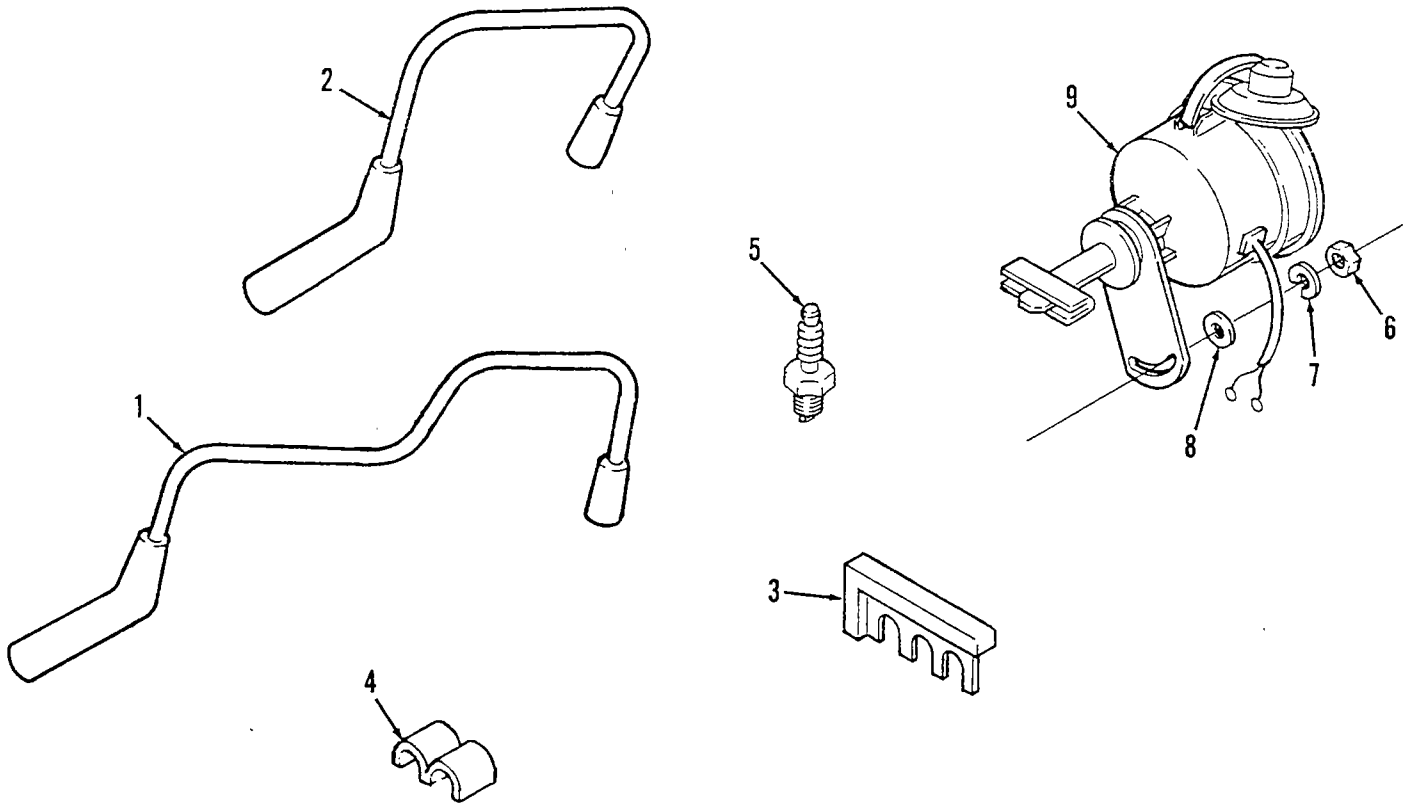
# Carburetor Adapter and Pulleys



179A

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	800-2029	4	Screw, Cap - Hex Head (M6 x 1 x 12MM)	10	186-3190	2	Washer, Lock - Spring (M8)
2	850-2006	4	Washer, Lock - Spring (M6)	11	186-3058	1	Hanger
3	186-3181	2	Pulley	12	186-3196	4	Stud (M8 x 28MM)
4	186-3116	1	Bolt, Hex Head	13	186-3191	2	Bolt, Hex Head - with Lock Washer
5	186-3118	1	Washer	14	186-3197	1	Switch, Thermostatic
6	186-3117	4	Bolt, Hex Head (M6 x 14MM)	15	186-3192	1	Manifold, Inlet (Includes Nipple and Joint)
7	186-3119	1	Pulley	16	186-3193	1	Nipple
8	186-3019	1	Gasket	17	186-3194	1	Joint
9	186-3145	2	Nut, Hex (M8)	18	186-3003	1	Gasket

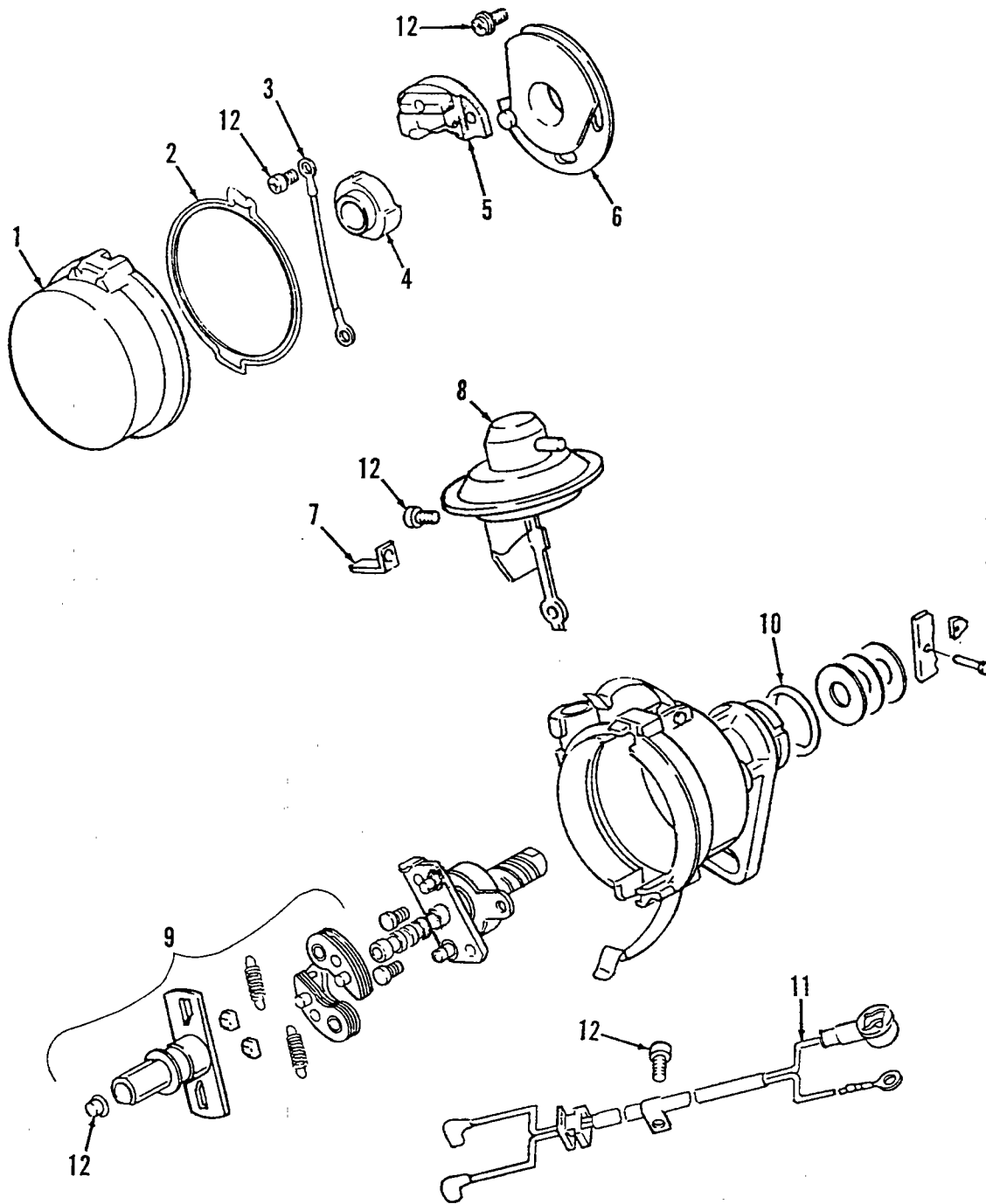
## Distributor and Sparkplugs



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	186-3212	1	Cable, Plug No. 1
2	186-3213	1	Cable, Plug No. 2
3	186-3214	1	Clamp, Cable
4	186-3215	1	Clamp, Hose
5	186-3218	2	Plug, Spark

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
6	186-3145	1	Nut, Hex (M8)
7	186-3190	1	Washer, Lock - Spring (M8)
8	186-3198	1	Washer, Flat (M8)
9	166-0788	1	Distributor (See Separate Page for Components)

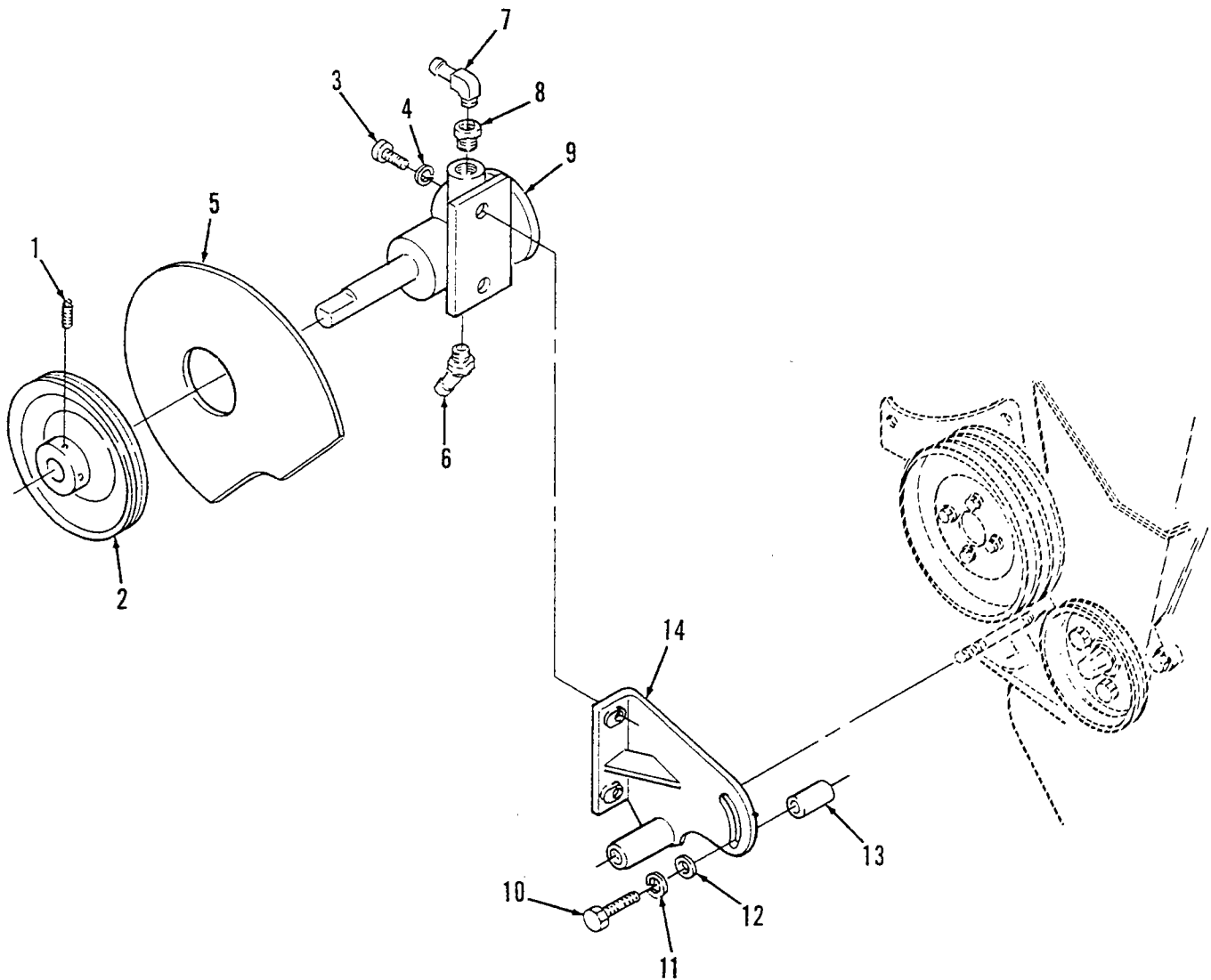
# Distributor Components



176A

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	166-0778	1	Cap, Distributor	7	186-3205	1	Plate
2	186-3208	1	Packing	8	186-3206	1	Vacuum Assembly
3	186-3201	1	Lead, Wire	9	186-3207	1	Governor Set
4	186-3202	1	Rotor	10	186-3209	1	O-Ring
5	186-3203	1	Igniter	11	186-3210	1	Lead, Wire
6	186-3204	1	Breaker, Subassembly	12	186-3211	1	Set, Hardware

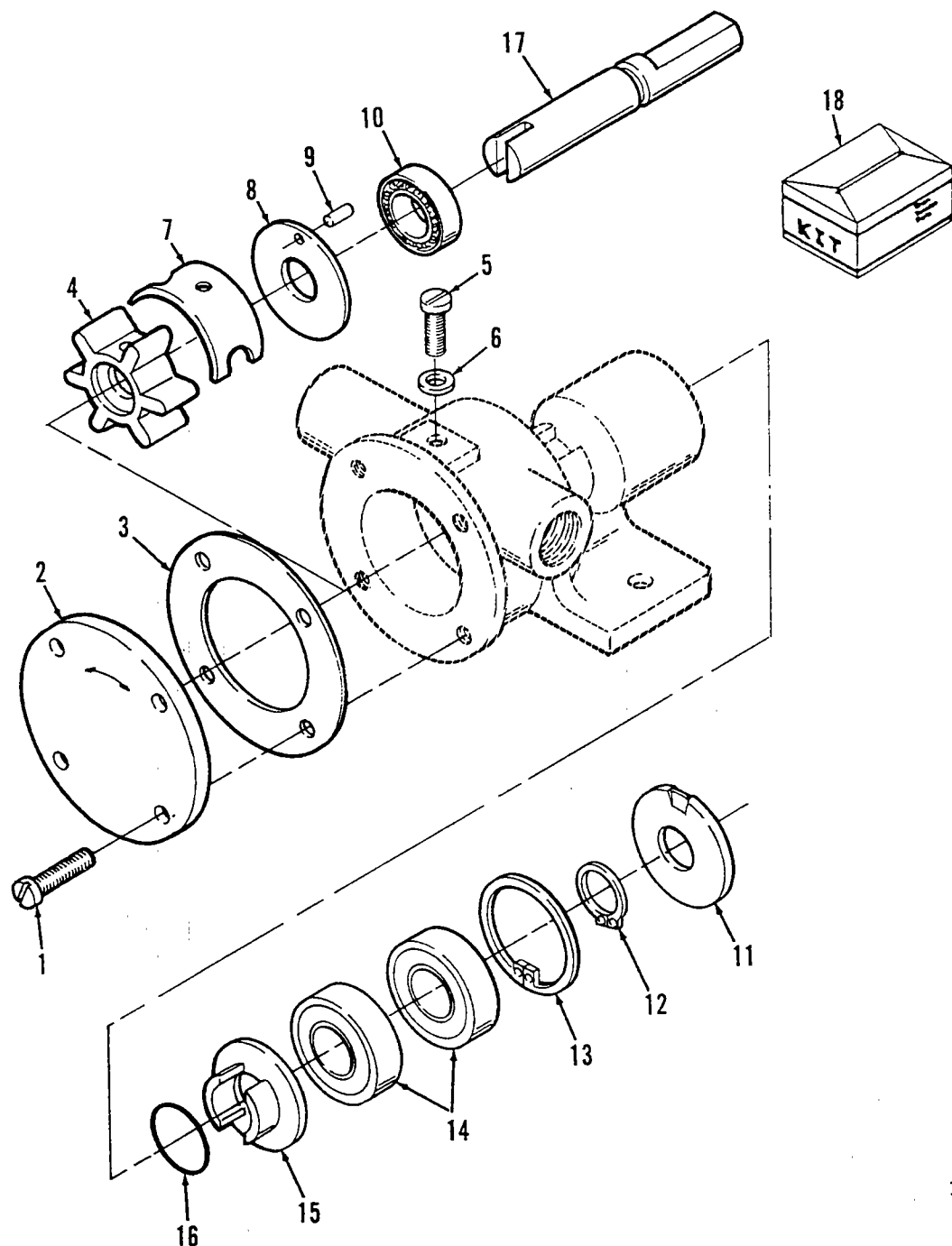
# Raw Water Pump



190A

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	815-0636	2	Screw, Set - Socket Drive (#10-32 x 3/8")	8	502-0976	1	Adapter
2	512-0171	1	Pulley (Includes Set Screws)	9	132-0284	1	Pump, Water - Raw (See Separate Page for Components)
3	800-2033	2	Screw, Cap - Hex Head (M6 x 1 x 16MM)	10	800-2067	1	Screw, Cap - Hex Head (M8 x 1.256 x 70MM)
4	850-2006	2	Washer, Lock - Spring (M6)	11	850-2008	1	Washer, Lock - Spring (M8)
5	131-0438	1	Cover, Backplate	12	526-0115	1	Washer, Flat (M8)
6	502-1020	1	Elbow, Hose - 45 Degree	13	370-4023-01	1	Spacer
7	502-0300	1	Elbow, Hose - 90 Degree	14	131-0436	1	Bracket, Mounting - Pump

# Raw Water Pump Components

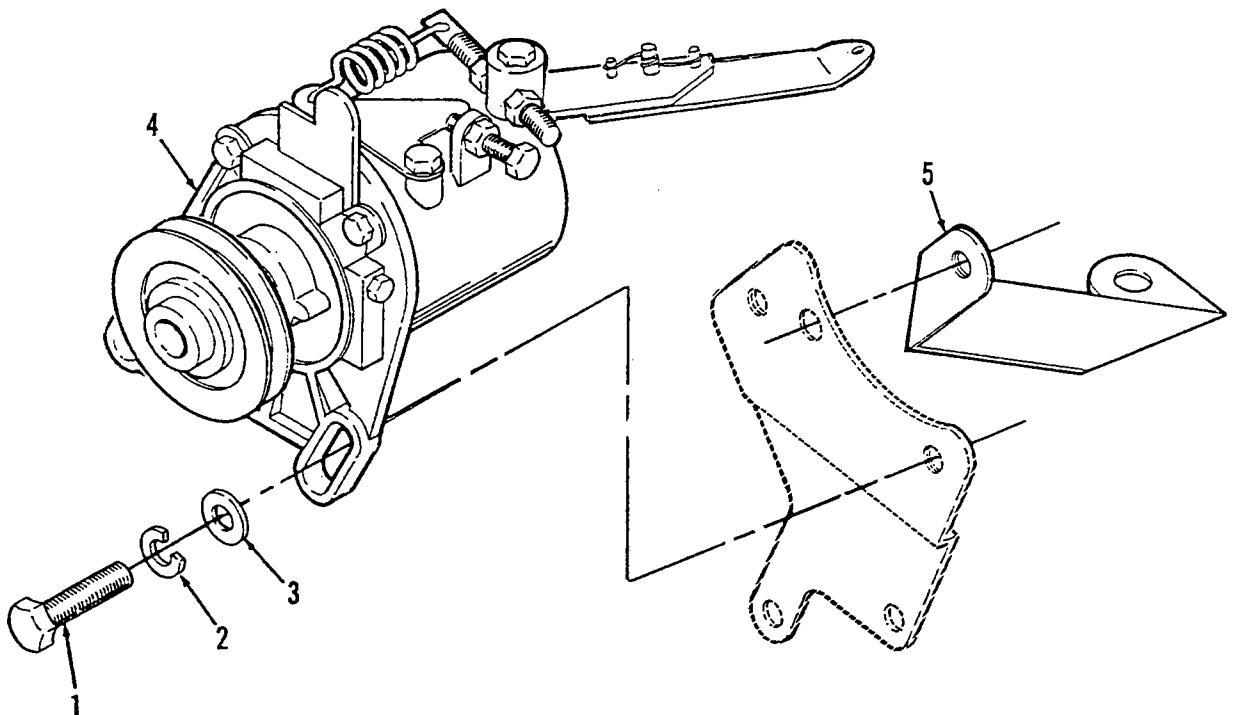


165A

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	132-0284	1	Pump, Water	10	132-0308	1	*Seal
1	132-0312	4	*Screw, Machine - Binding Head	11	132-0303	1	Washer, Non-Metallic
2	132-0306	1	Cover	12	132-0296	1	Ring, Retaining
3	132-0309	1	*Gasket	13	132-0299	1	Ring, Retaining
4	132-0310	1	*Impeller	14	132-0300	2	Bearing, Ball
5	132-0302	1	Screw, Machine - Binding Head	15	132-0304	1	Washer/Spacer - Non-Metallic
6	132-0298	1	Washer, Flat - Copper	16	132-0301	1	Ring, O
7	132-0305	1	Cam	17	132-0307	1	Shaft
8	132-0297	1	Plate, Wear	18	132-0311	1	Kit, Repair (Includes parts marked *)
9	132-0295	1	Pin, Straight - Solid				

\* - Parts included in Repair Kit.

# Governor

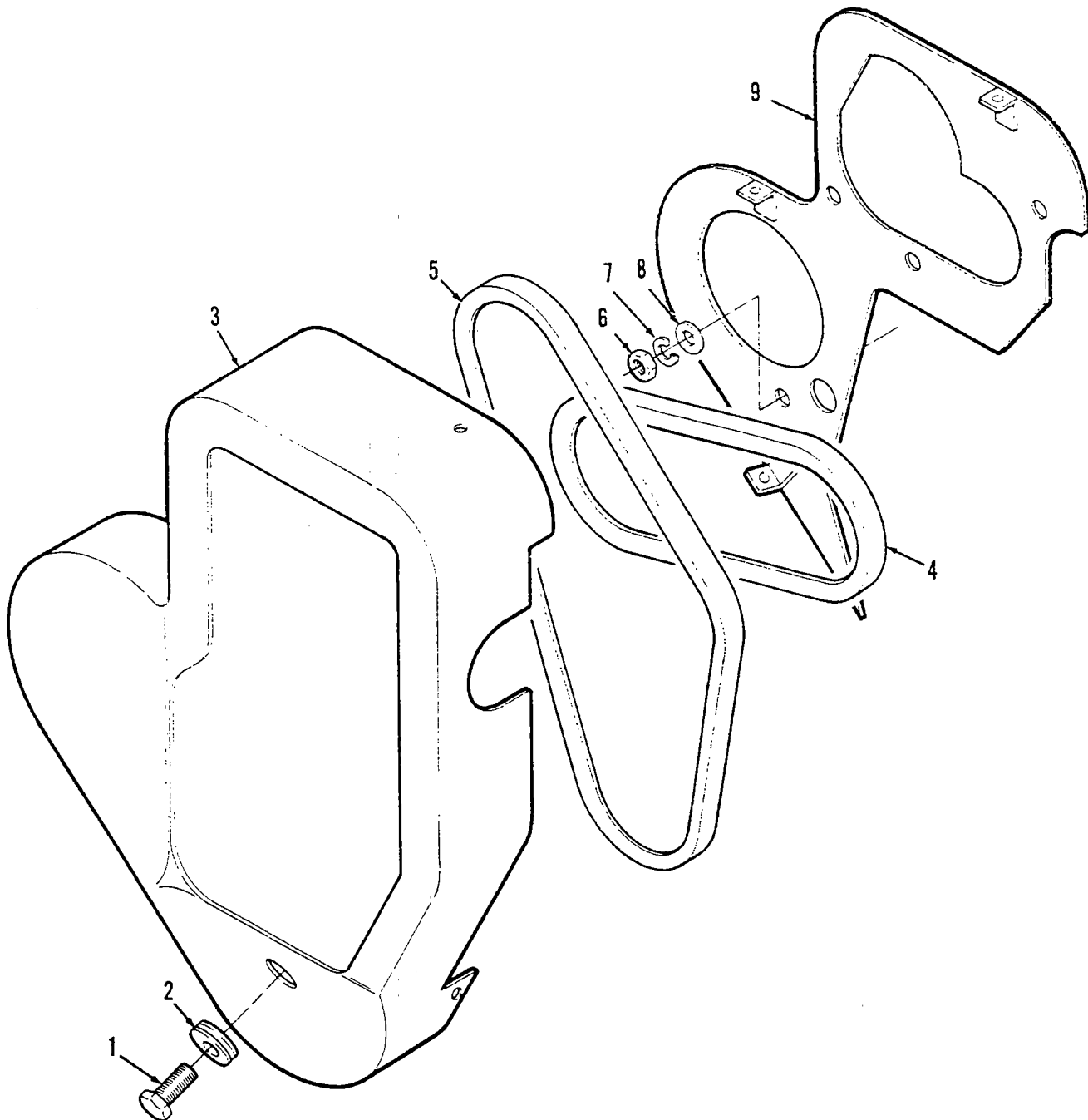


REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	802-2117	3	Screw, Cap - Socket Head (M10 x 1.5 x 35MM)
2	850-2010	3	Washer, Lock - Spring (M10)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
3	526-0029	1	Washer, Flat (M10)
4	151-0616	1	Governor (Includes Pulley)
5	151-0623	1	Brace



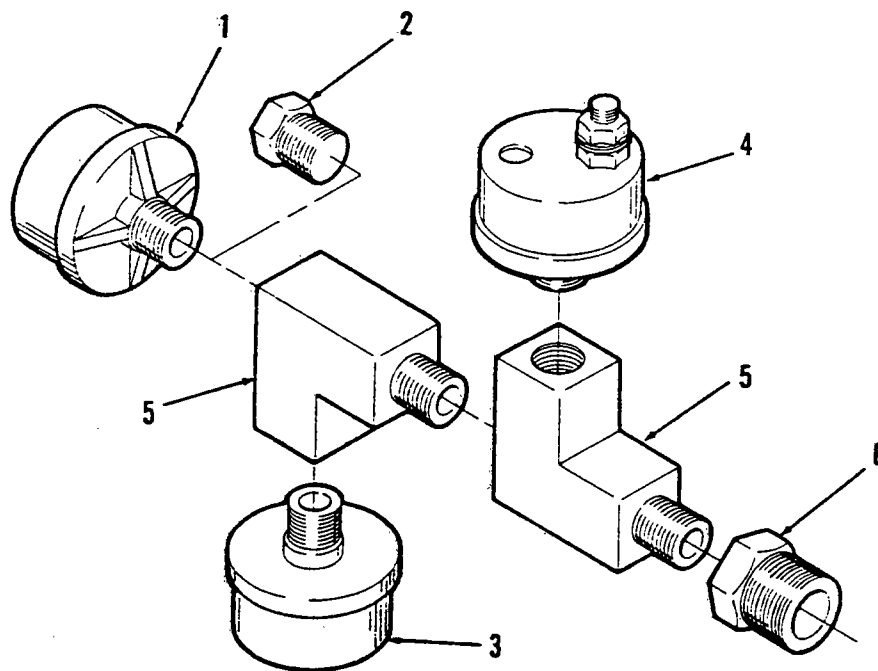
# V Belts and Belt Guard



189C

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	815-0670	4	Bolt, Self-locking - Hex (M6 x 1 x 12MM)	6	860-2008	1	Nut, Hex (M8 x 1.25)
2	508-0276	4	Grommet	7	850-2008	1	Washer, Lock - Spring (M8)
3	130-2972	1	Guard, Belt	8	526-0115	1	Washer, Flat (M8)
4	511-0154-01	1	Belt, V - Governor	9	130-3045	1	Plate, Back Spec A, B
5	511-0154-02	1	Belt, V - Water Pump		130-3566	1	Begin Spec C

# Oil Pressure Sender and Switches

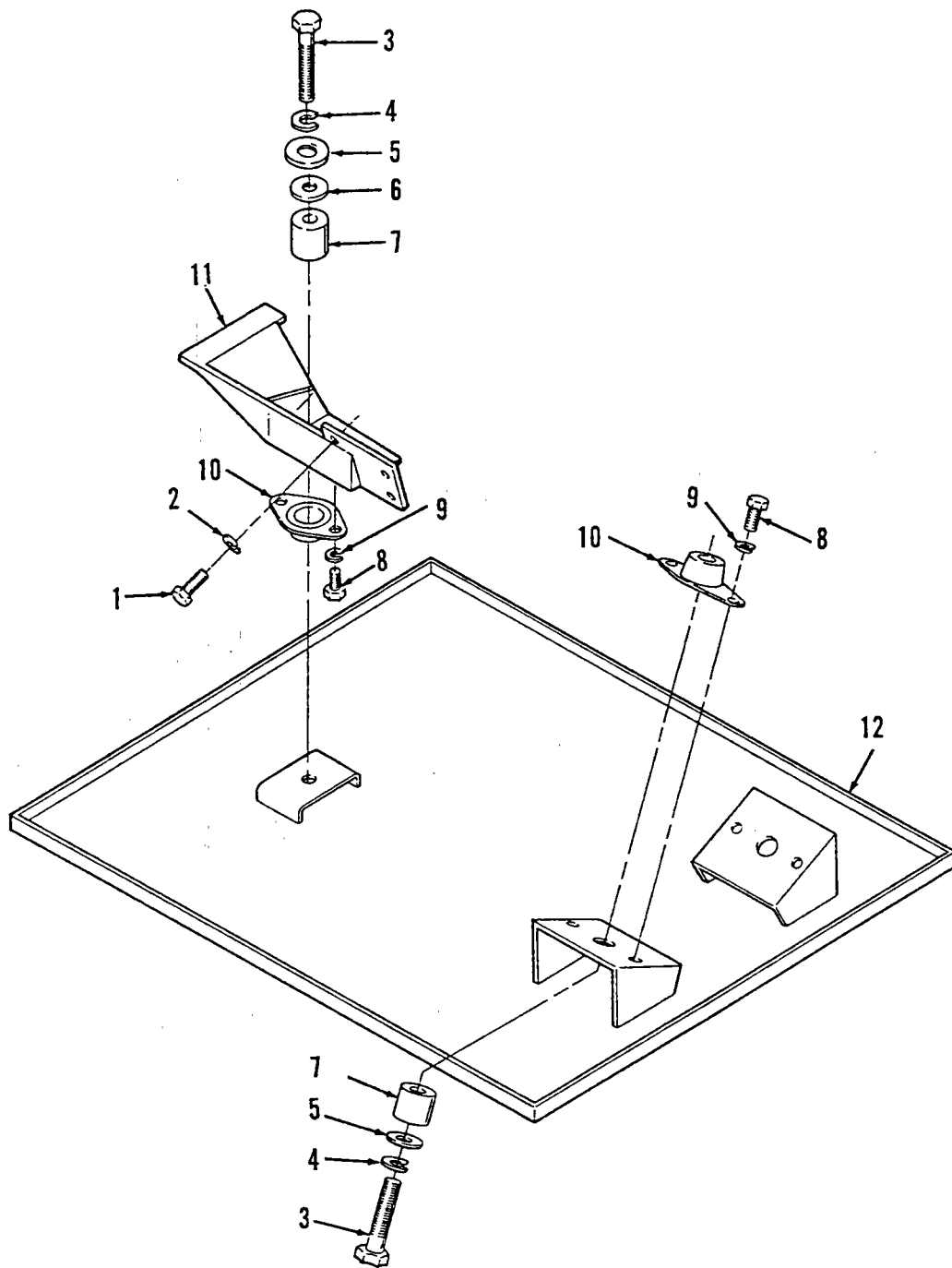


188A

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	193-0244	1	Sender, Pressure - Oil
2	502-0028	1	Plug, Hex - Units Without 193-0244 Sender
3	309-0104	1	Switch, Pressure - Oil

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
4	309- <del>0561</del> 0561-05	1	Switch, Pressure - Oil
5	502-0058	2	Tee
6	502-0917	1	Adapter

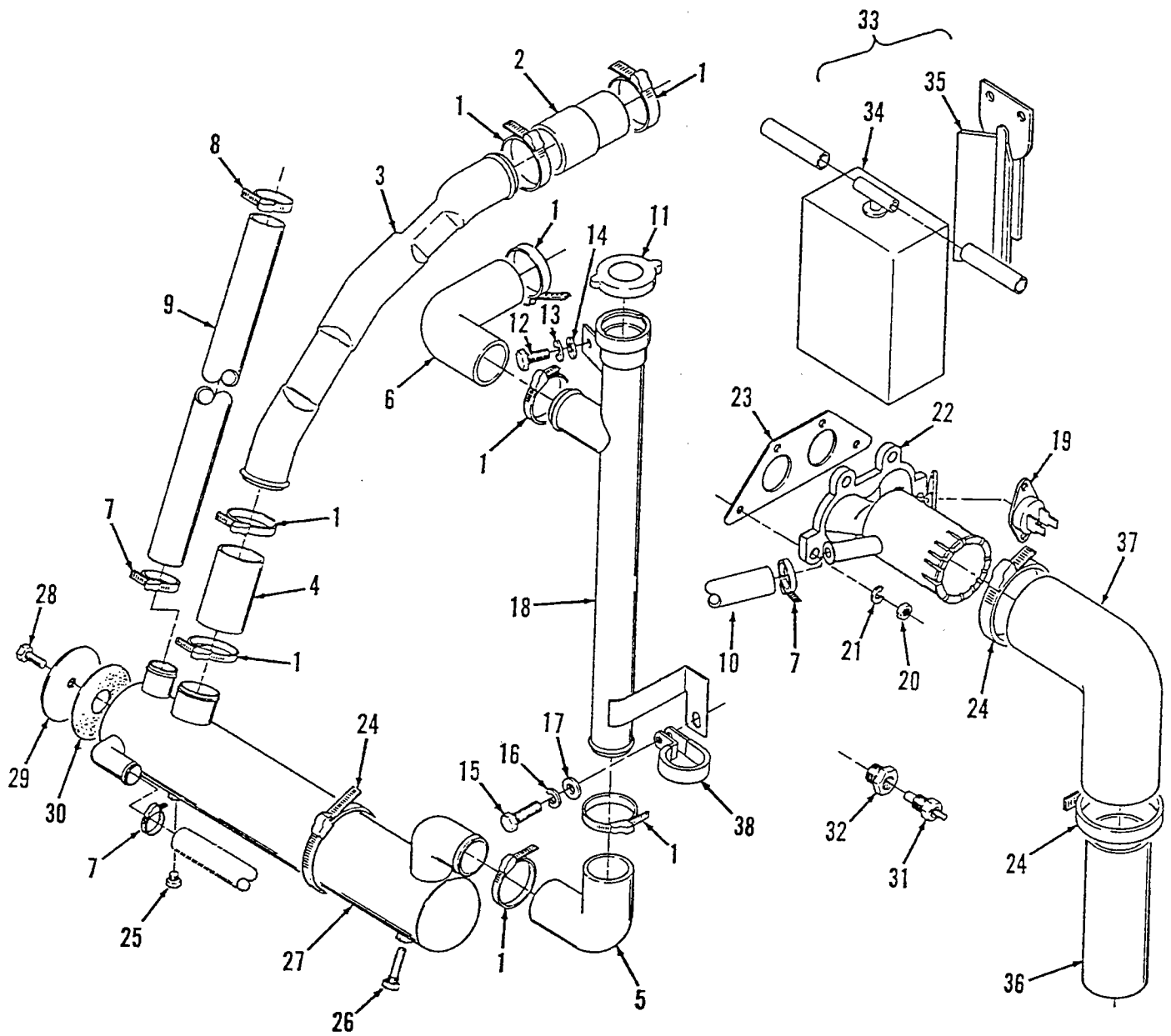
# Drip Pan and Mounts



185C

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	800-3004	3	Screw, Cap - Hex Head (M10 x 1.25 x 22MM)	7	403-2213	3	Spacer, Sleeve
2	850-2010	3	Washer, Lock - Spring (M10)	8	800-2031	6	Screw, Cap - Hex Head (M6 x 1 x 14MM)
3	800-2091	3	Screw, Cap - Hex Head (M10 x 1.25 x 50MM)	9	526-2080	6	Washer, Lock - Spring (M6)
4	850-2010	3	Washer, Lock - Spring (M10)	10	402-0598	3	Mount, Vibration
5	526-0014	3	Washer, Flat (7/16")	11	403-2515	1	Mount, Engine
6	526-2121	1	Washer, Flat (M10)	12	403-2514	1	Pan, Drip

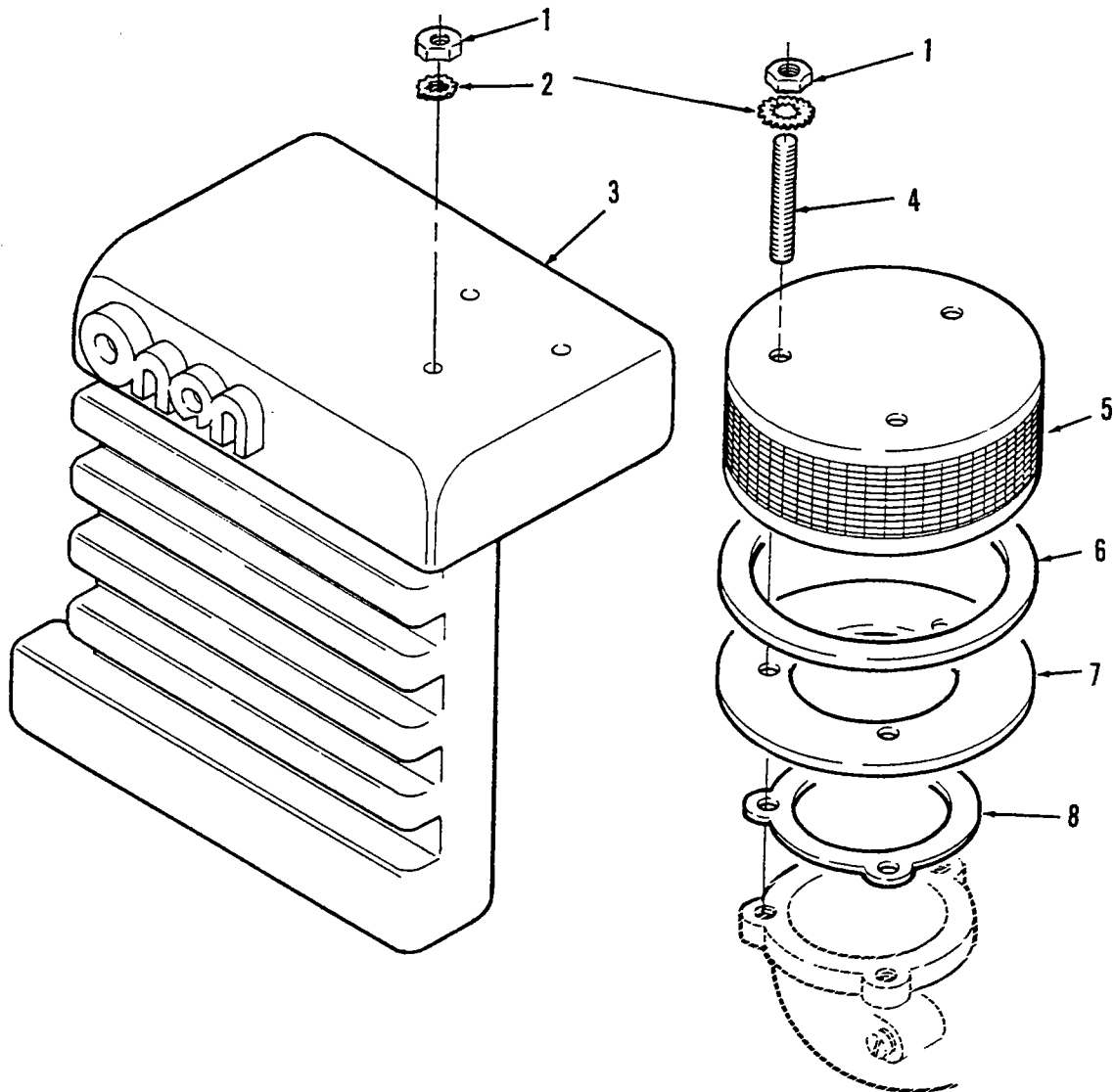
# Cooling System



## Cooling System

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-1138	8	Clamp, Hose	21	850-2008	4	Washer, Lock - Spring (M8)
2	503-1514	1	Hose	22	154-2674	1	Manifold, Exhaust
3	130-2952	1	Tube	23	186-3001	1	Gasket
4	503-1513	1	Hose	24	503-1142	6	Clamp, Hose
5	503-1526	1	Elbow, Hose	25	502-0028	1	Plug, Pipe - Hex Head, Brass
6	503-1515	1	Elbow, Hose	26	130-1341	1	Pencil, Zinc
7	503-1136	3	Clamp, Hose	27	130-2954	1	Exchanger, Heat (Includes Cap and Gasket)
8	503-0976	1	Clamp, Hose	28	815-0300	1	Screw, Cap - Hex Head, Brass (5/16-18 x 1/2")
9	503-1601	1	Hose	29	130-1031	1	Cap, End
10	503-1168	1	Hose	30	130-0959	1	Gasket
11	130- <del>2008</del> 3721	1	Cap, Radiator	31	193-0388	1	Sender, Temperature - Water
12	800-2033	1	Screw, Cap - Hex Head (M6 x 1 x 16MM)	32	502-0029	1	Bushing, Reducer - Hex
13	850-2006	1	Washer, Lock - Spring (M6)	33	130-2781	1	Kit, Recovery (Includes Tank and Bracket)
14	526-0016	1	Washer, Flat (M6)	34	130-2779	1	Tank (Includes Hose)
15	800-3004	1	Screw, Cap - Hex Head (M10 x 1.25 x 22MM)	35	130-2780	1	Bracket, Mounting
16	850-2010	1	Washer, Lock - Spring (M10)	36	154-2699	1	Tube
17	526-0029	1	Washer, Flat (M10)	37	503-1527	1	Elbow, Premolded
18	130-2953	1	Tube, Fill	38	332-1024	1	Clamp, Loop
19	309-0537	1	Switch, Temperature				
20	860-2008	4	Nut, Hex (M8)				

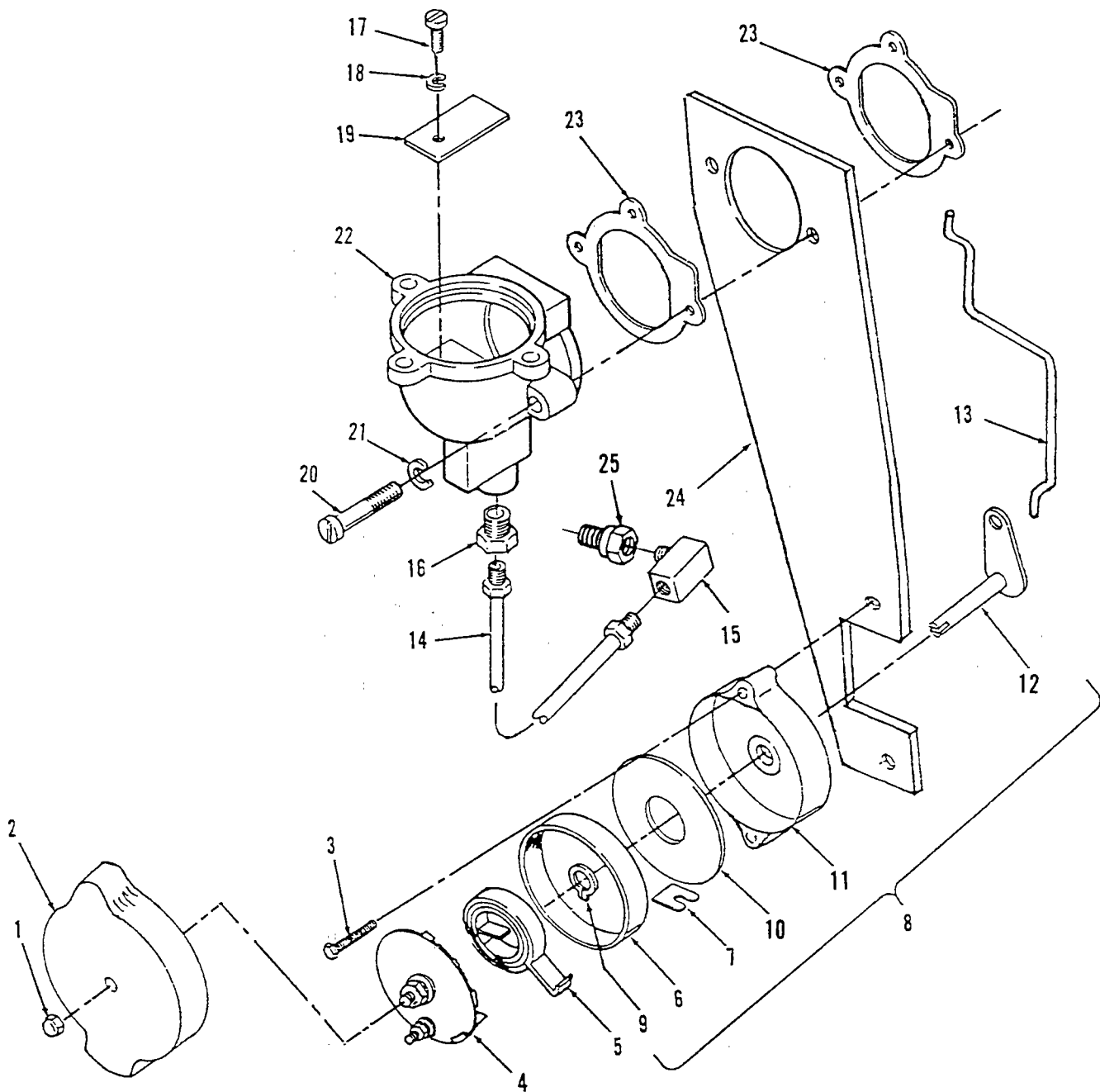
# Resonator and Spark Arrester



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	860-2006	6	Nut, Hex (M5 x 0.8)
2	856-0003	6	Washer, Lock - EIT
3	140-2134	1	Resonator
4	520-2011	3	Stud (M5 x 70MM)

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
5	145-0582	1	Arrestor, Spark
6	140-2133	1	Gasket - Resonator
7	140-2132	1	Plate, Resonator
8	145-0581	1	Gasket

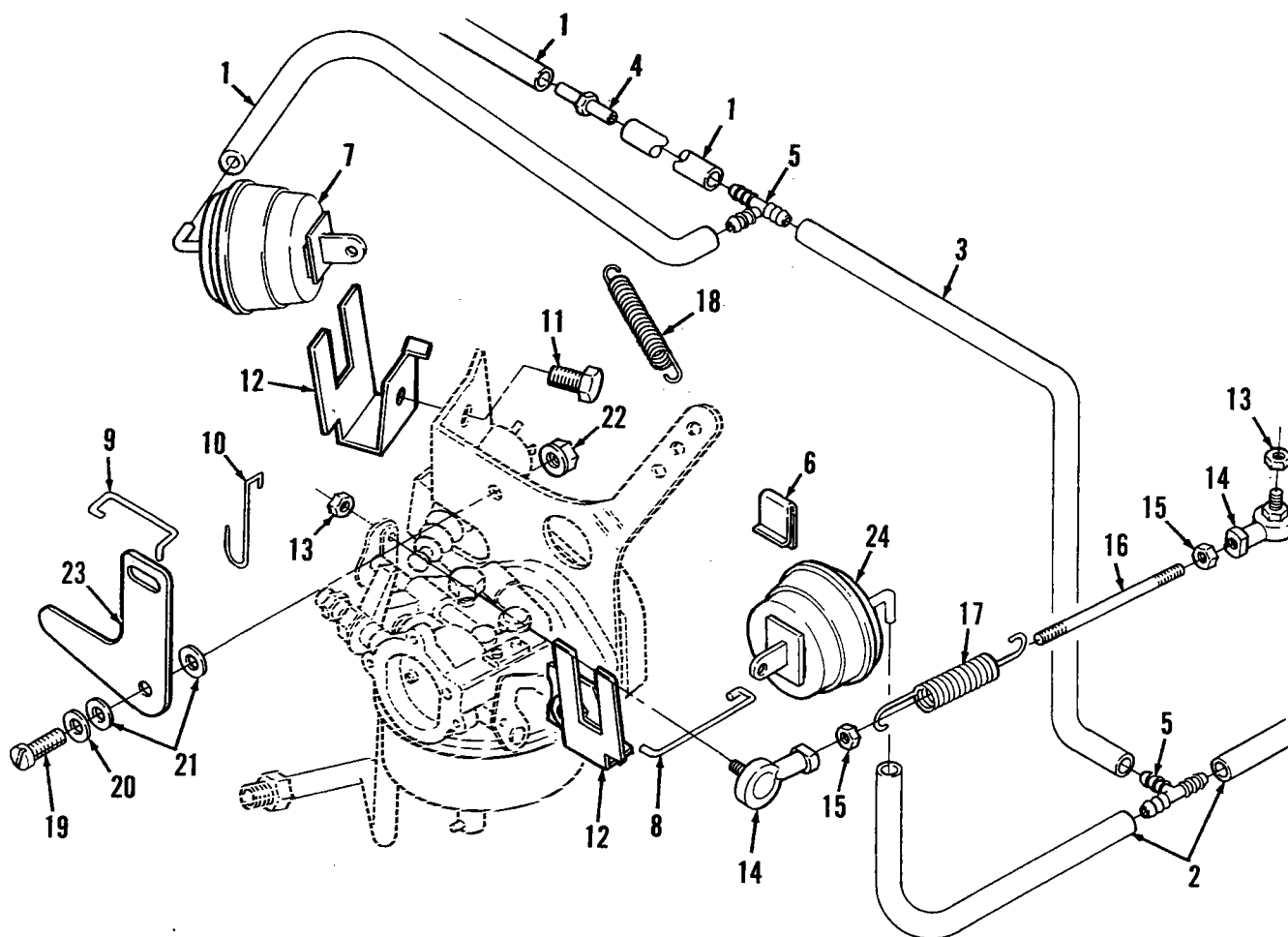
# Air Intake Elbow and Electric Choke



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	870-0421	1	Nut, Cap (#6-32)	14	149-2096	1	Line, Fuel - Return
2	153-0579	1	Cover, Protective	15	502-0019	1	Elbow, Inverted Male - 90 DEG
3	815-0592	2	Screw, Cap - Hex Head (#8-32 x 1-3/8")	16	502-0030	1	Connector - Inverted Male
4	153-0613	1	Cover with Heater	17	812-0059	1	Screw, Machine - Round Head (#6-32 x 1/4")
5	153-0554	1	Element, Spring	18	850-0020	1	Washer, Lock - Spring (#6)
6	153-0578	1	Tube, Choke Housing	19	149-2092	1	Cover - Fuel Return
7	518-0466	1	Clip, Retaining	20	813-0117	2	Screw, Machine - Round Head (#10-32 x 1-5/8")
8	153-0556	1	Housing Assembly, Choke *Includes Parts Marked *)	21	850-0030	2	Washer, Lock - Spring (#10)
9	518-0387	1	*Ring, Retaining	22	140-2131	1	Elbow, Air Intake
10	153-0571	1	*Washer, Insulating	23	140-1087	2	Gasket
11	153-0563	1	*Housing, Choke	24	153-0589	1	Bracket, Mounting - Choke
12	153-0567	1	*Shaft with Lever	25	502-0917	1	Adapter, Pipe
13	153-0607	1	Link, Choke				

\* - Parts included in Choke Housing Assembly.

# Throttle Linkage and Vacuum Diaphragms

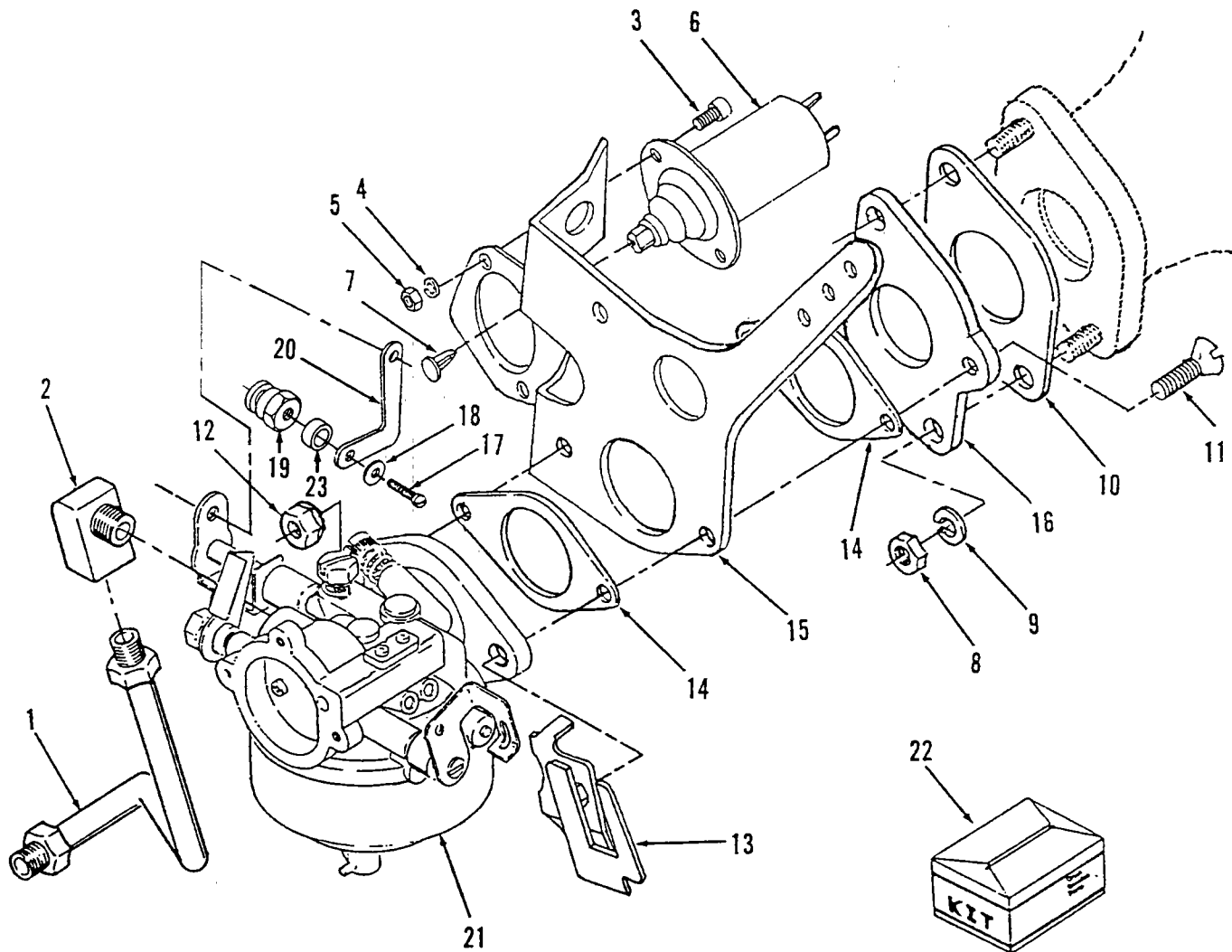


740B

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	503-1537-01	3	Hose	14	150-0939	2	Joint, Ball
2	503-1537-03	2	Hose	15	870-0053	2	Nut, Hex (#10-32)
3	503-1537-02	1	Hose	16	150-1069	1	Stud
4	502-1025	1	Fitting, Restrictor	17	150-2209	1	Spring
5	502-1024	2	Tee, Hose	18	150-0366	1	Spring
6	518-0450	2	Clip, U	19	813-0102	1	Screw, Machine - Round Head (#10-32 x 5/8")
7	153-0614	1	Diaphragm, Vacuum - Pull Off	20	526-0012	1	Washer, Flat
8	153-0577	1	Link, Pull Off	21	526-0338	2	Washer, Flat - Nylon
9	153-0617	1	Link, Pull Off	22	870-0131	1	Nut, Hex with ET Lockwasher (#10-32)
10	153-0616	1	Link, Pull Off	23	153-0618	1	Bracket, Throttle Linkage
11	821-0014	1	Screw, Self-locking - Hex (5/16-18 x 1/2")	24	153-0576	1	Diaphragm, Vacuum - Pull Off
12	153-0561	2	Bracket, Mounting - Diaphragm		153-0616	1	Linkage, Throttle - Spec A, B (Not Shown)
13	870-0131	2	Nut, Hex with ET Lockwasher (#10-32)				

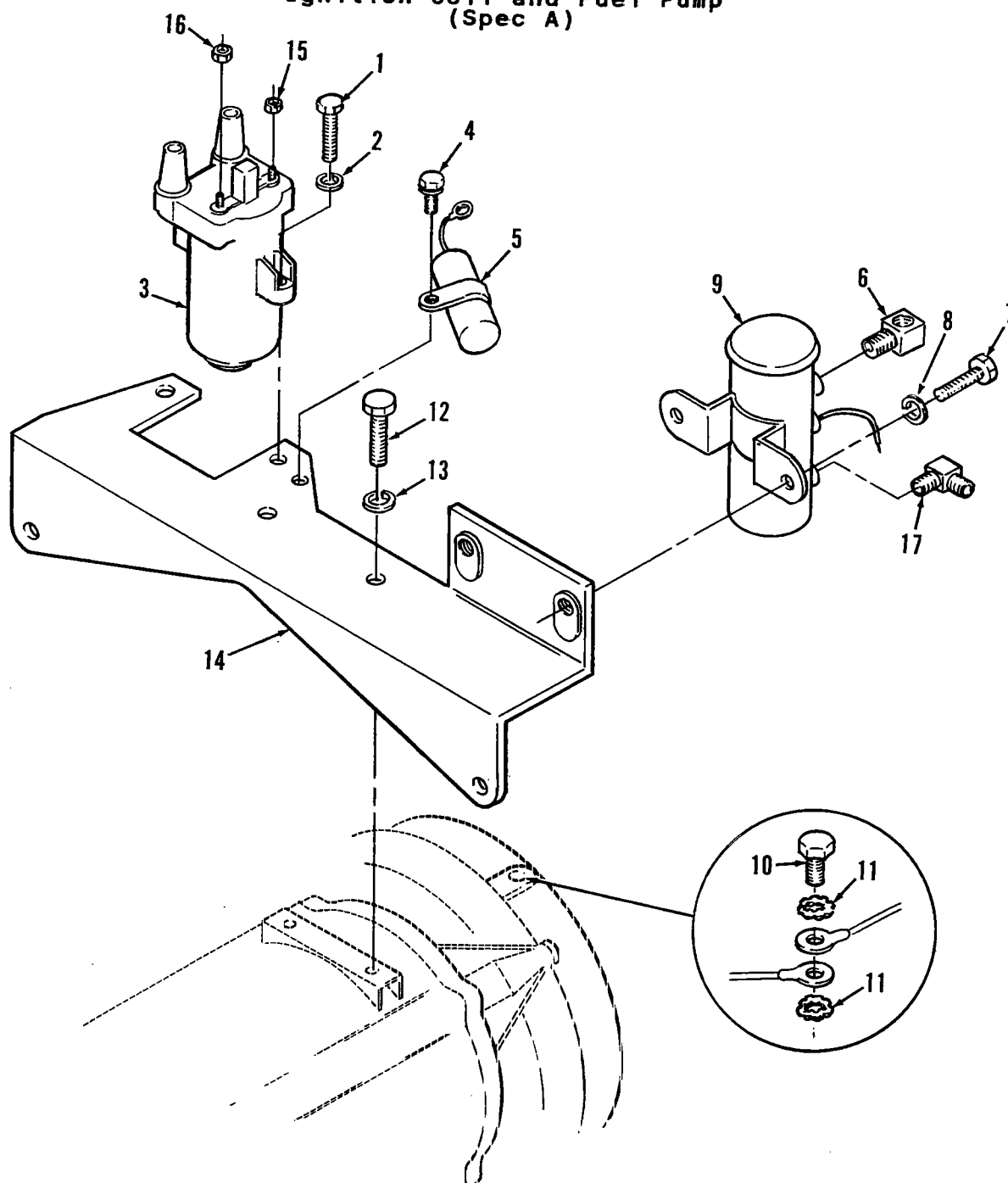


# Carburetor and Stop Solenoid



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	149-2095	1	Line, Fuel - Incoming Spec A	13	153-0561	1	Bracket, Mounting - Diaphragm
	149-2237	1	Begin Spec B	14	140-0921	2	Gasket, Carburetor Air Horn
	149-2265	1	Begin Spec C	15	301-9859	1	Bracket, Mounting - Solenoid
2	502-0002	1	Elbow, Inverted Male - 90 DEG	16	145-0579	1	Adapter
3	802-2044	2	Screw, Cap - Socket Head (M5 x 0.8 x 12MM)	17	813-0102	1	Screw, Machine - Round Head (#10-32 x 5/8")
4	850-2005	2	Washer, Lock - Spring (M5)	18	526-0196	1	Washer, Flat (7/32")
5	860-2006	2	Nut, Hex (M5 x 0.8)	19	306-1971	1	Insert, Hex - Threaded
6	307-2546	1	Solenoid, Stop - 12 VDC	20	152-0297	1	Link, Throttle
7	517-0257	1	Plug	21	146-0455	1	Carburetor, Gasoline (Includes Air Horn and Mounting Gasket)
8	860-2008	2	Nut, Hex (M8 x 1.25)	22		1	Kit
9	850-2008	2	Washer, Lock - Spring (M8)		146-0453	1	Float and Valve - Carburetor
10	186-3019	1	Gasket		146-0457	1	Repair - Carburetor
11	814-0181	2	Screw, Countersunk (5/16-18 x 1-1/4")	23	153-0615	1	Bushing, Linkage
12	870-0257	1	Nut, Self-locking - Hex (5/16-18)				

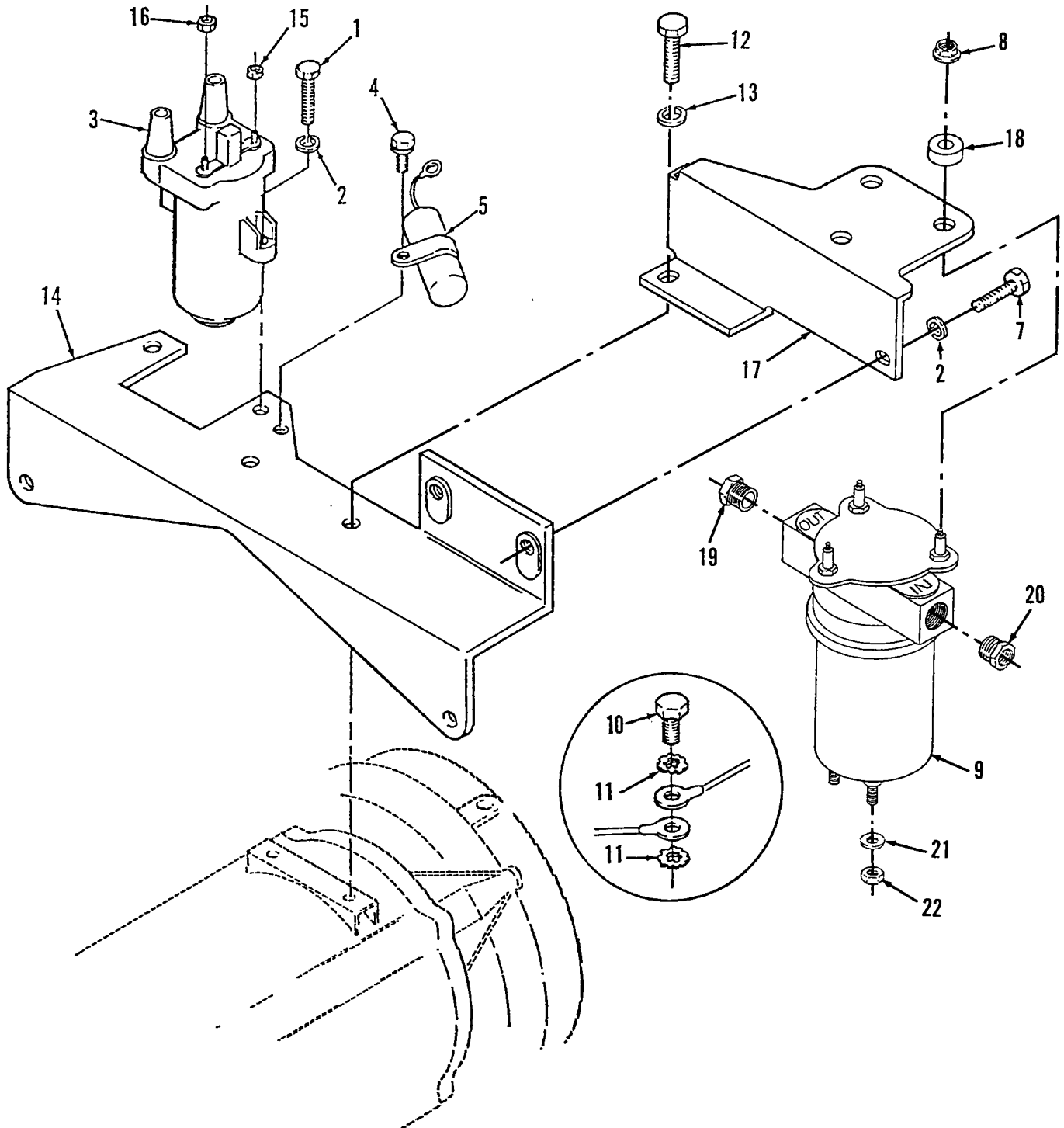
# Ignition Coil and Fuel Pump (Spec A)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	800-2034	2	Screw, Cap - Hex Head (M6 x 1 x 20MM)	10	800-2031	1	Screw, Cap - Hex Head (M6 x 1 x 14MM)
2	526-2080	2	Washer, Lock - Spring (M6)	11	856-0006	2	Washer, Lock - EIT (1/4")
3	166-0761	1	Coil, Ignition	12	800-2054	2	Screw, Cap - Hex Head (M8 x 1.25 x 14MM)
4	815-0340	1	Screw, Tapping - Hex Head (#10-32)	13	850-0045	2	Washer, Lock - Spring (5/16")
5	312-0051	1	Capacitor	14	301-9717	1	Bracket, Mounting
6	502-0002	1	Elbow - 90 Degree	15	166-0770	1	Nut, Hex (M4 x 0.7)
7	800-2029	2	Screw, Cap - Hex Head (M6 x 1 x 12MM)	16	166-0771	1	Nut, Hex (M5 x 0.8)
8	856-0006	2	Washer, Lock - EIT (1/4")	17	502-0020	1	Elbow - 90°
9	NFS	1	Pump, Fuel Spec A (Must convert to Spec B. Use Kit 149-2240)				



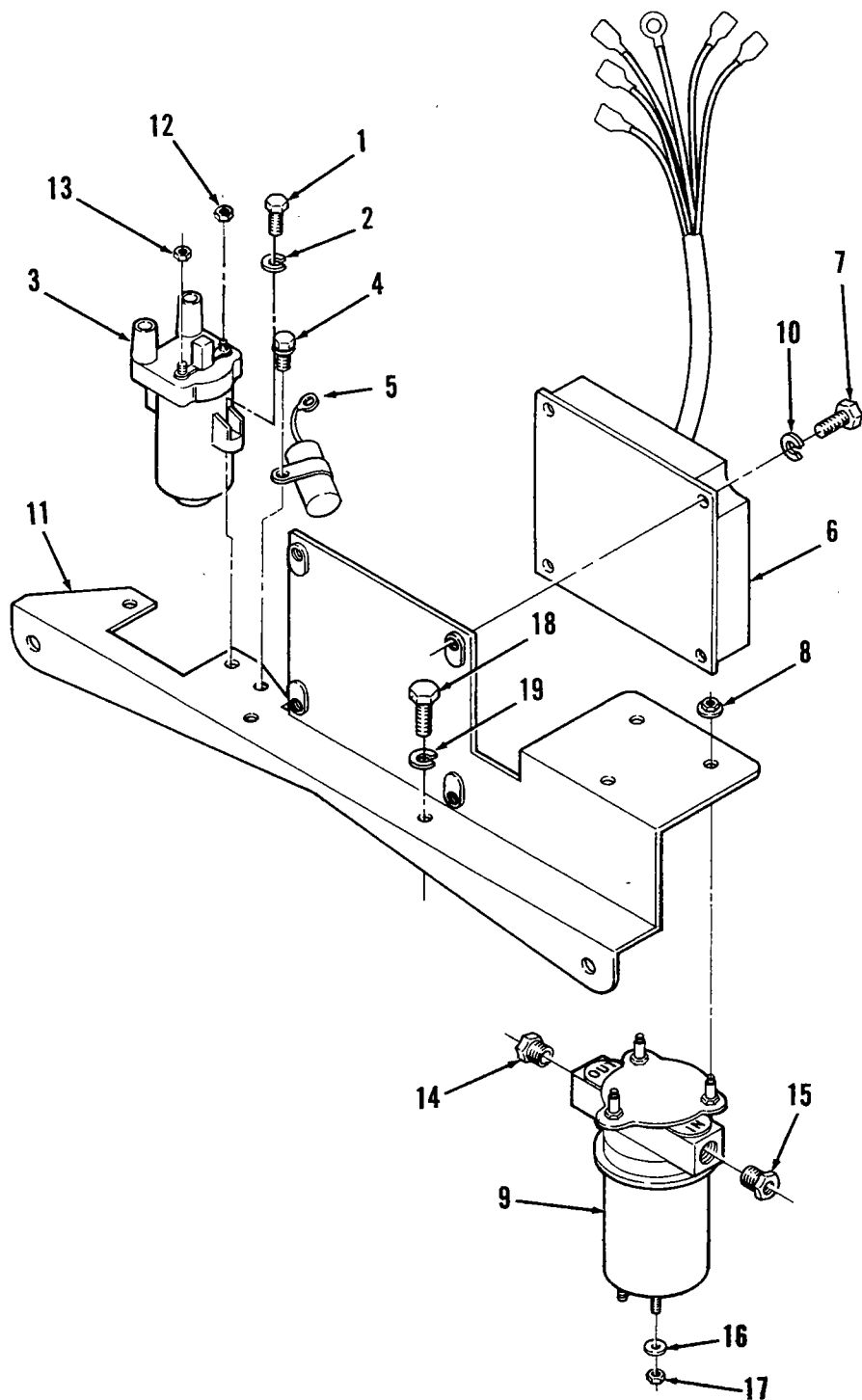
# Ignition Coil and Fuel Pump (Spec B)



# **Ignition Coil and Fuel Pump (Spec B)**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	800-2034	2	Screw, Cap - Hex Head (M6 x 1 x 20MM)	11	856-0006	2	Washer, Lock - EIT (1/4")
2	526-2080	3	Washer, Lock - Spring (M6)	12	800-2056	2	Screw, Cap - Hex Head (M8 x 1.25 x 16MM)
3	166-0761	1	Coil, Ignition	13	850-0045	2	Washer, Lock - Spring (5/16")
4	815-0340	1	Screw, Tapping - Hex Head	14	301-9717	1	Bracket, Mounting
5	312-0051	1	Capacitor	15	166-0770	1	Nut, Hex (M4 x 0.7)
7	800-2029	1	Screw, Cap - Hex Head (M6 x 1 x 12MM)	16	166-0771	1	Nut, Hex (M5 x 0.8)
8	870-0212	3	Nut, Flange-Locking - Self (1/4"-20)	17	149-2227	1	Bracket, Mounting - Pump
9	149-2159	1	Pump, Fuel	18	370-4052	3	Spacer
10	800-2031	1	Screw, Cap - Hex Head (M6 x 1 x 14MM)	19	502-0033	1	Connector, Male - Inverted
				20	502-0029	1	Bushing, Pipe
				21	526-0008	2	Washer, Flat (#10)
				22	870-0131	2	Nut, Hex - Ext. Tooth (#10-32)

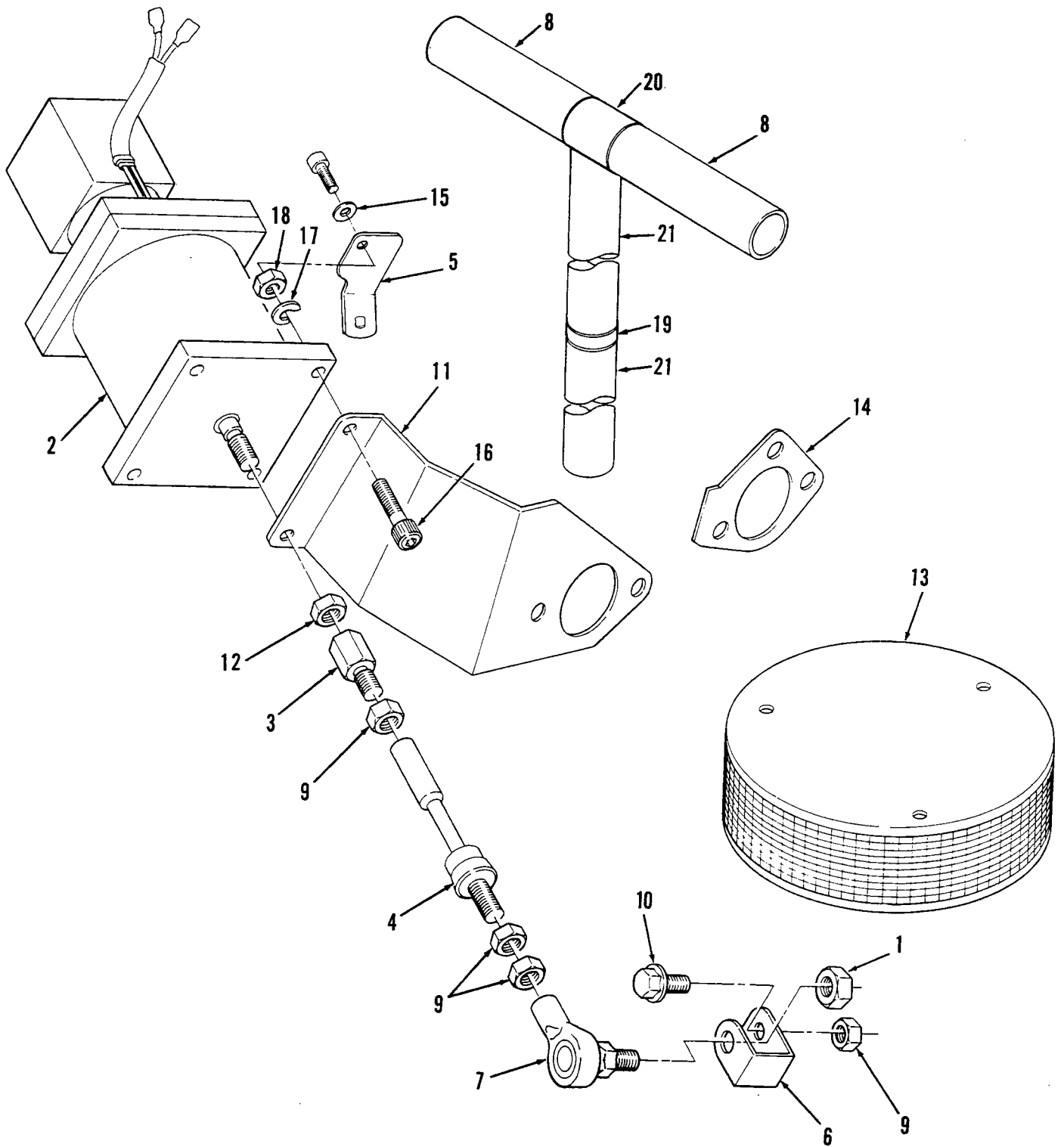
# Ignition Coil, Fuel Pump and Controller (Spec C)



# **Ignition Coil, Fuel Pump and Controller (Spec C)**

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	800-2034	2	Screw, Cap - Hex Head (M6 x 1 x 20MM)	10	526-2060	4	Washer, Lock (M5)
2	526-2080	2	Washer, Lock - Spring (M6)	11	319-0751	1	Bracket, Mounting
3	166-0761	1	Coil, Ignition	12	166-0770	1	Nut, Hex (M4 x 0.7)
4	815-0340	1	Screw, Tapping - Hex Head	13	166-0771	1	Nut, Hex (M5 x 0.8)
5	312-0051	1	Capacitor	14	502-0033	1	Connector, Male - Inverted
6	150-2330	1	Controller, Governor	15	502-0029	1	Bushing, Pipe
7	800-2002	4	Screw, Cap - Hex Head (M5 x 0.8 x 10MM)	16	526-0008	2	Washer, Flat (#10)
8	870-0212	3	Nut, Self-Locking (1/4-20)	17	870-0131	2	Nut, Hex - Ext. Tooth (#10-32)
9	149-2159	1	Pump, Fuel	18	800-2056	2	Screw, Cap - Hex Head (M8 x 1.25 x 16MM)
				19	850-0045	2	Washer, Lock (5/16")

# Actuator

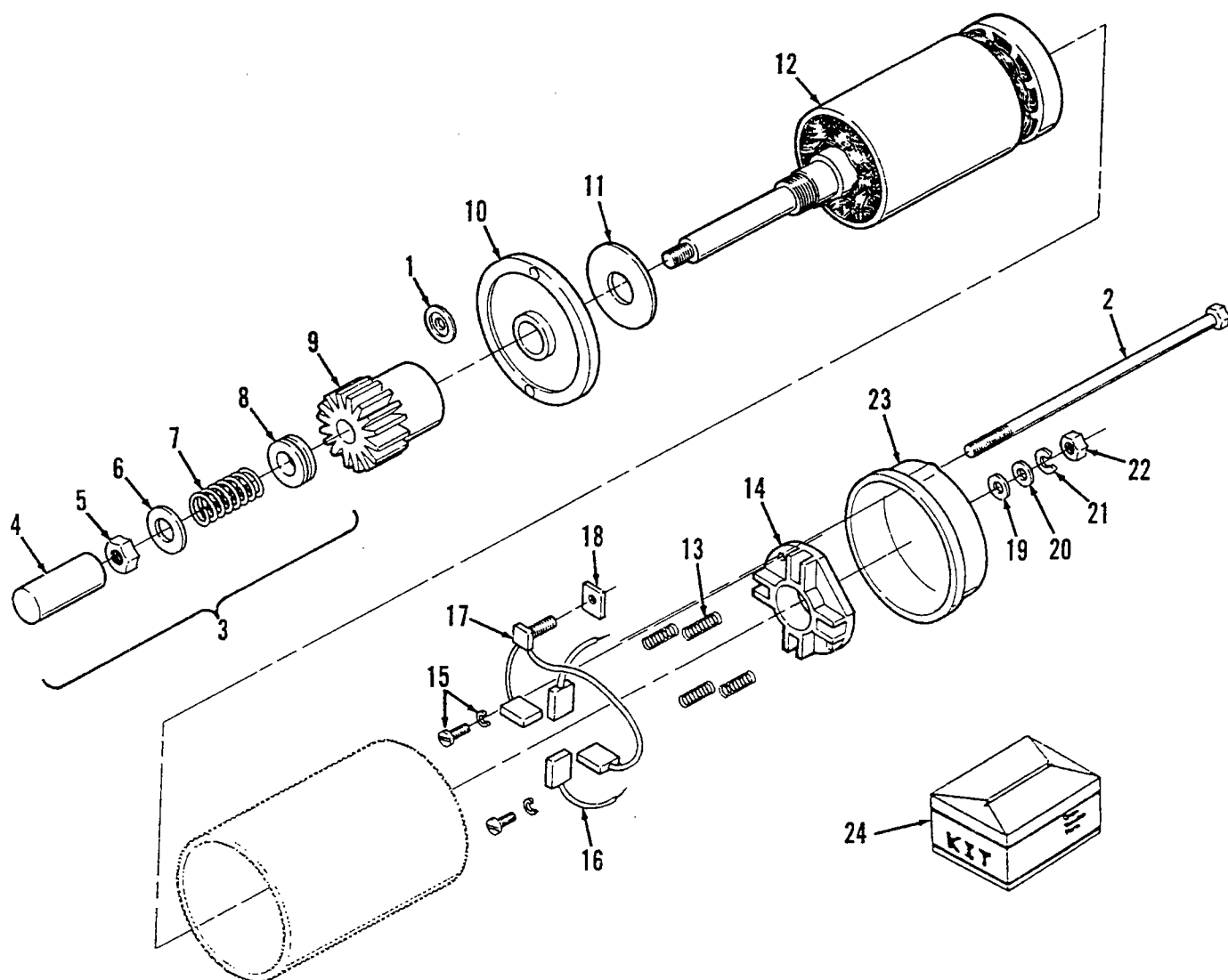




# Actuator

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	870-0131	1	Nut, Hex - W/ET (#10-32)	11	150-2326	1	Bracket, Mounting - Actuator
2	150-2331	1	Actuator	12	860-2007	1	Nut, Hex (M6 x 1)
3	150-2314	1	Adapter, Governor Linkage	13	145-0582	1	Arrestor, Flame
4	150-1733	1	Joint, Ball	14	140-0921	2	Gasket, Air Horn - Carburetor
5	150-2327	1	Bracket, Support - Actuator	15	526-2060	1	Washer, Flat (M5)
6	152-0318	1	Bracket, Throttle	16	802-2048	2	Screw, Socket Head (M5 x 0.8)
7	150-1995	1	Joint, Ball	17	850-2005	2	Washer, Lock (M5)
8	503-1537-03	2	Hose, Vacuum	18	860-2006	2	Nut, Hex (M5 x 0.8)
9	115-0025	3	Nut, Hex (1/4-20)	19	502-1025	1	Fitting, Restrictor
10	821-0004	1	Screw, Flange - Lock Head (#10-32 x 5/16")	20	502-1024	1	Tee, Hose
				21	503-1537-02	2	Hose, Vacuum

## Starter Components



227B

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
	191-1803	1	Starter, Electrical	13	NFS	4	*@Spring, Brush
1	870-0438	2	Retainer, Bolt	14	NFS	1	@Holder, Brush
2	191-1048	2	Bolt, Hex Head	15	NFS	2	@Screw and Lock Washer
3	191-1359	1	Dust Cover Assembly (Includes Parts Marked #)	16	NFS	2	*@Brush, Ground
4	NFS	1	#Cover, Dust	17	NFS	1	*@Stud and Brush, Input
5	NFS	1	#Nut, Stop	18	NFS	1	@Bushing, Insulator
6	NFS	1	#Washer	19	NFS	1	@Washer, Insulator
7	NFS	1	#Spring, Anti-drift	20	NFS	1	@Washer, Flat
8	NFS	1	#Spacer, Cover	21	NFS	1	@Washer, Lock
9	191-1156	1	Drive Assembly	22	NFS	1	@Nut, Hex
10	191-1840	1	Cap, End	23	191-1532	1	Cap Assembly, End (Includes Parts Marked @)
11	191-1038	1	Washer, Thrust	24	191-1841	1	Kit, Repair - Brush and Spring (Includes Parts Marked *)
12	191-1039	1	Armature				

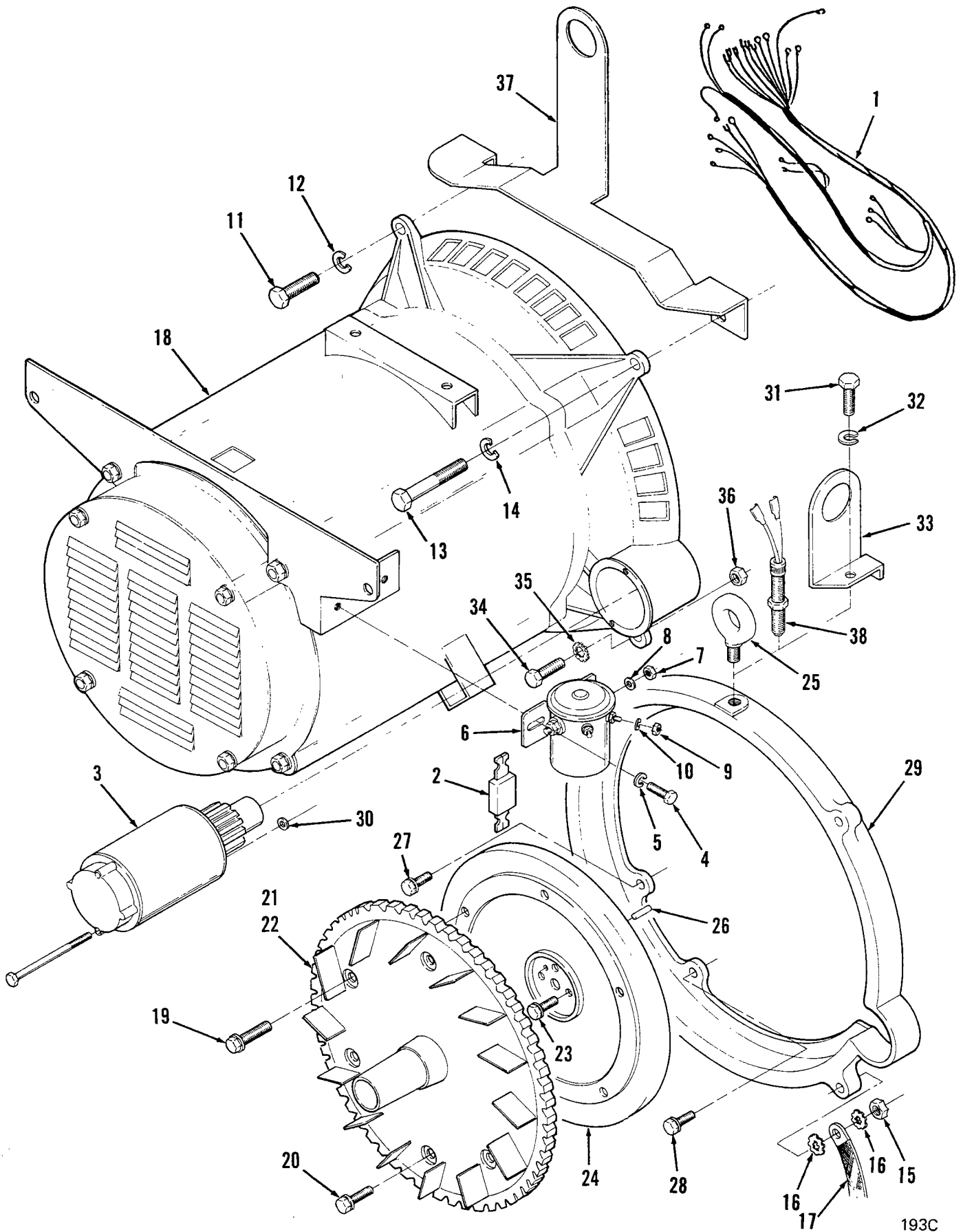
# - Parts included in Dust Cover Assembly.

@ - Parts included in End Cap Assembly.

\* - Parts included in Repair Kit.



# Blower, Flywheel and Starter

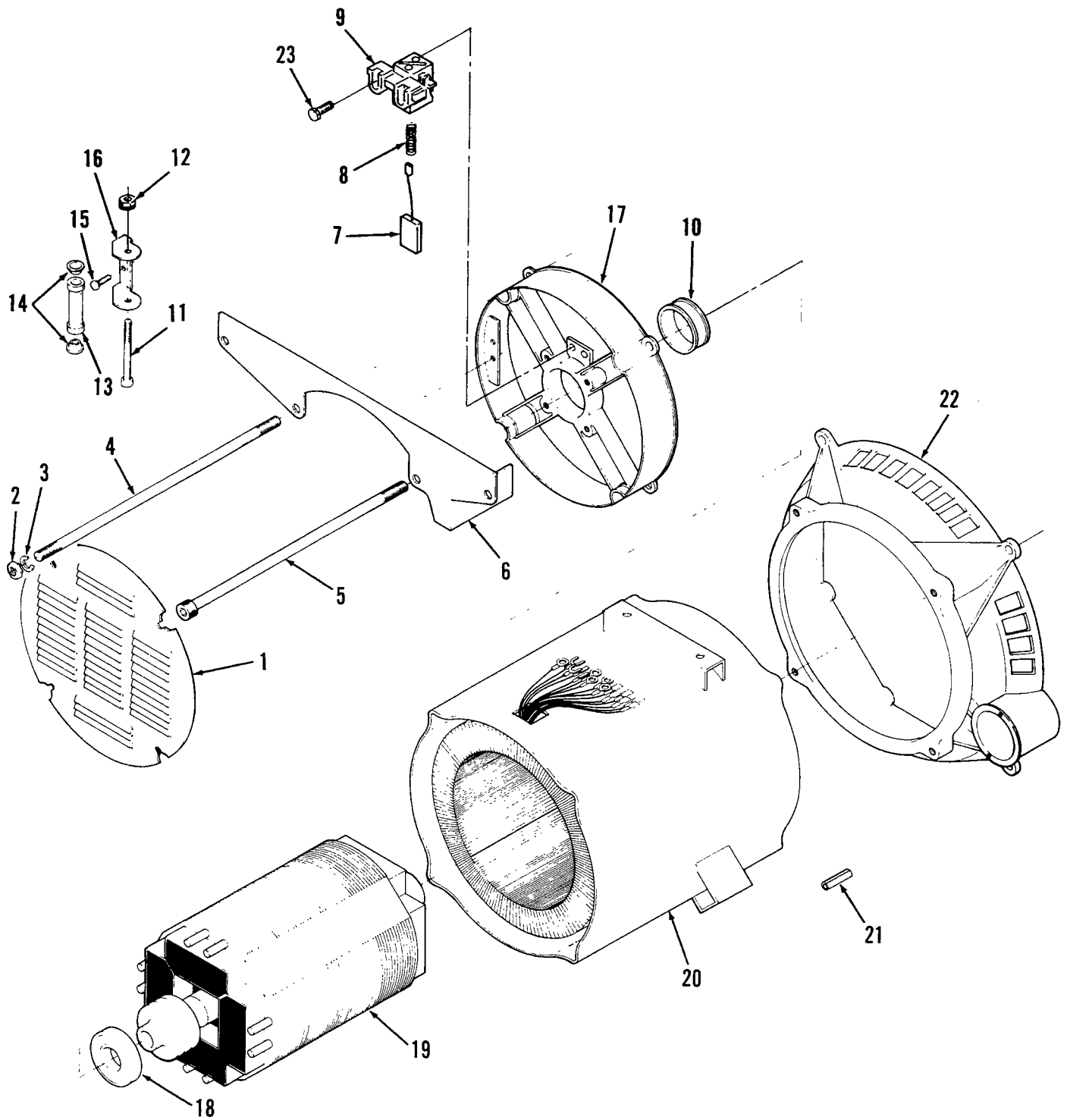


193C

## Blower, Flywheel and Starter

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	338-2028-01	1	Harness, Wiring - Engine	17	337-0049	1	Strap, Electrical - Ground
			Units Without Gauges - Spec A	18		1	Generator (See Separate Page for Components)
	338-2028-02	1	Units With Gauges - Spec A	19	186-3217	2	Bolt, Hex Head
	338-2458-01	1	Units Without Gauges - Begin Spec B	20	186-3216	4	Bolt, Hex Head - with Lock Washer (M6 x 16MM)
	338-2458-02	1	Units With Gauges - Begin Spec B	21	134-4628	1	Blower with Ring Gear
				22	104-0779	1	Gear, Ring
	338-2503-01	1	Units Without Gauges - Begin Spec C	23	186-3125	4	Bolt, Hex Head
				24	186-3124	1	Flywheel
	338-2503-02	1	Units With Gauges - Begin Spec C	25	403-2192	1	Bolt, Eye (Used only Thru April 1987) - Spec A
2	357-0067	1	Rectifier	26	186-3123	1	Pin, Dowel
3	191-1803	1	Starter	27	800-3005	2	Bolt, Hex Head (M10 x 30MM)
4	800-2029	2	Screw, Cap - Hex Head (M6 x 1 x 12MM)	28	800-3006	2	Bolt, Hex Head (M10 x 40MM)
5	850-2006	2	Washer, Lock - Spring (M6)	29	101-0757	1	Adapter, Engine
6	307-1617	1	Solenoid, Start (Includes Terminal Hardware)	30	870-0438	1	Retainer, Bolt
7	110-0445	2	Nut, Hex (5/16-24)	31	800-2112	1	Screw, Cap - Hex Head (M12 x 1.75 x 30MM)
8	526-0022	2	Washer, Flat (5/16")	32	850-2012	1	Washer, Lock - Spring (M12)
9	870-0053	2	Nut, Hex (#10-32)	33	403-2655	1	Bracket, Lifting (Used Beginning May 1987) - Spec A, B
10	850-0030	2	Washer, Lock - Spring (#10)				
11	800-2058	3	Screw, Cap - Hex Head (M8 x 1.25 x 25MM)	34	800-3008	2	Screw, Cap - Hex Head (M8 x 1.25 x .50)
12	850-2008	3	Washer, Lock - Spring (M8)	35	856-0008	9	Washer, EIT (5/16")
13			Screw, Cap - Hex Head	36	860-2008	4	Nut, Hex (M8 x 1.25)
	800-2060	1	M8 x 1.25 x 60MM - Spec A,B	37	403-2924	1	Bracket, Lifting - Begin Spec C
	800-2059	2	M8 x 1.25 x .30 - Begin Spec C	38	150-2335	1	Pickup, Magnetic - Begin Spec C
14	850-2008	1	Washer, Lock - Spring (M8)	39	191-1048	2	Bolt, Hex Head - Starter Mount
15	860-2008	1	Nut, Hex (M8 x 1.25)				
16	853-2008	2	Washer, Lock - ET (M8)				

# Generator

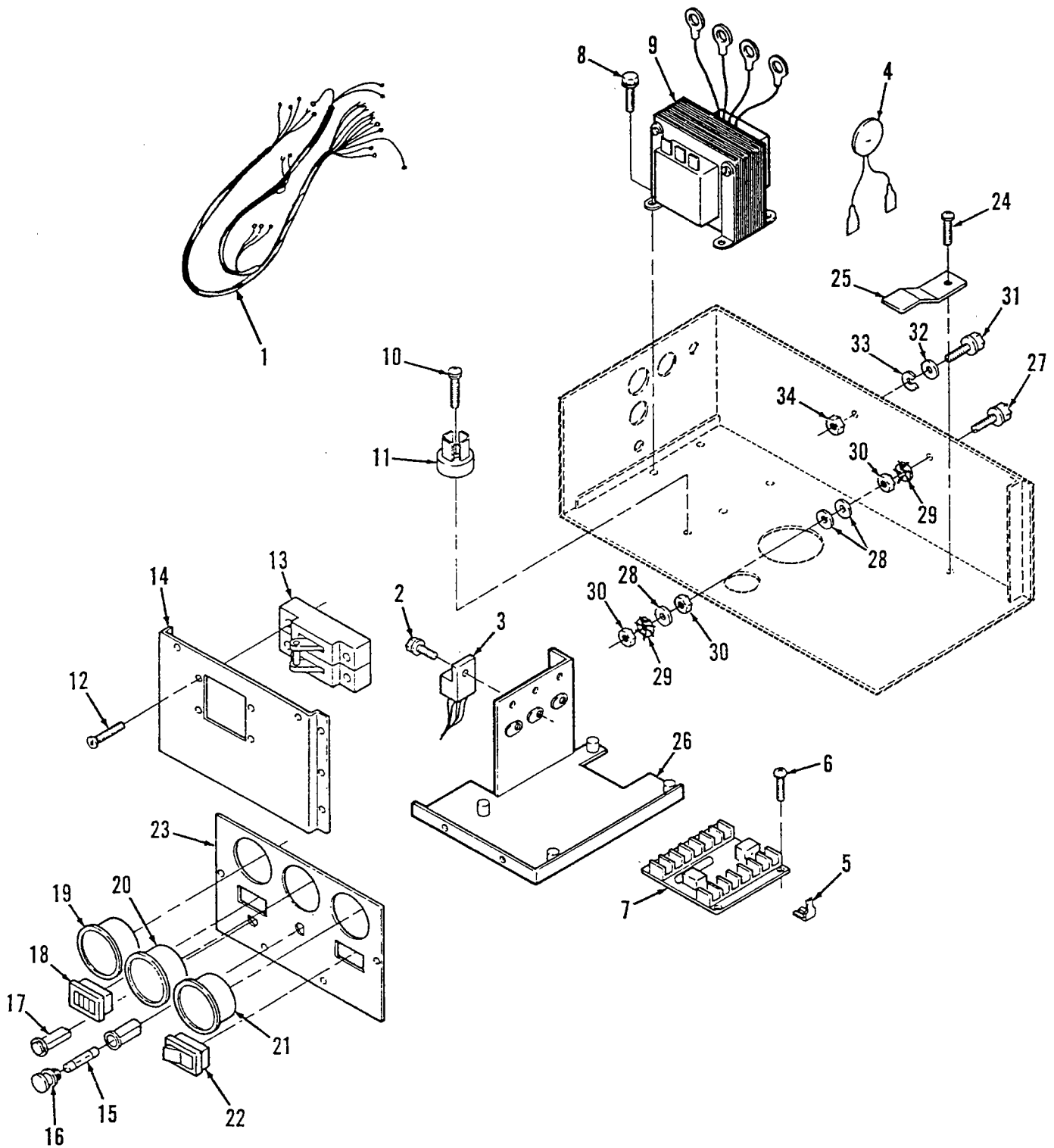


743B

# Generator

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	234-0831	1	Cover	14	304-0015	2	Washer, Centering
	815-0655-01	4	Screw, Cap - Hex, Thread Forming (M4 x 0.7 x 8MM)	15	815-0655-01	2	Screw, Cap - Hex, Thread Forming (M4 x 0.7 x 8MM)
2	862-0011	4	Nut, Hex (3/8-16)	16	304-0785	1	Bracket, Mounting - Resistor
3	850-0050	4	Washer, Lock - Spring (3/8")	17	211-0405-01	1	Bell, End
4	520-2425	4	Stud	18	510-0099	1	Bearing, Ball
5	802-1041	1	Screw, Cap - Socket Head	19	201-3393	1	Rotor, Generator
6	301-9718	1	Bracket	20	220-4142-01	1	Stator, Generator
7	214-0103	2	Brush	21	516-0103	1	Pin, Roll
8	212-1276-03	2	Spring, Brush	22	231-0291	1	Adapter, Generator
9	212-1282	1	Holder, Brush		800-2058	2	Screw, Cap - Hex Head (M8 x 1.25 x 25MM)
10	518-0519	1	Ring, Tolerance		850-2008	2	Washer, Lock Spring (M8)
11	813-0112	1	Screw, Machine - Round Head (#10-32 x 2-1/2")	23	815-0676-01	2	Screw, Cap - Hex, Thread Forming (#10-32 x 1/2")
12	870-0131	1	Nut, Hex with ET Lock Washer (#10-32)				
13			Resistor				
	304-0120	1	Spec A				
	304-0806	1	Begin Spec B				
	304-0811	1	Begin Spec C				

# Set Control

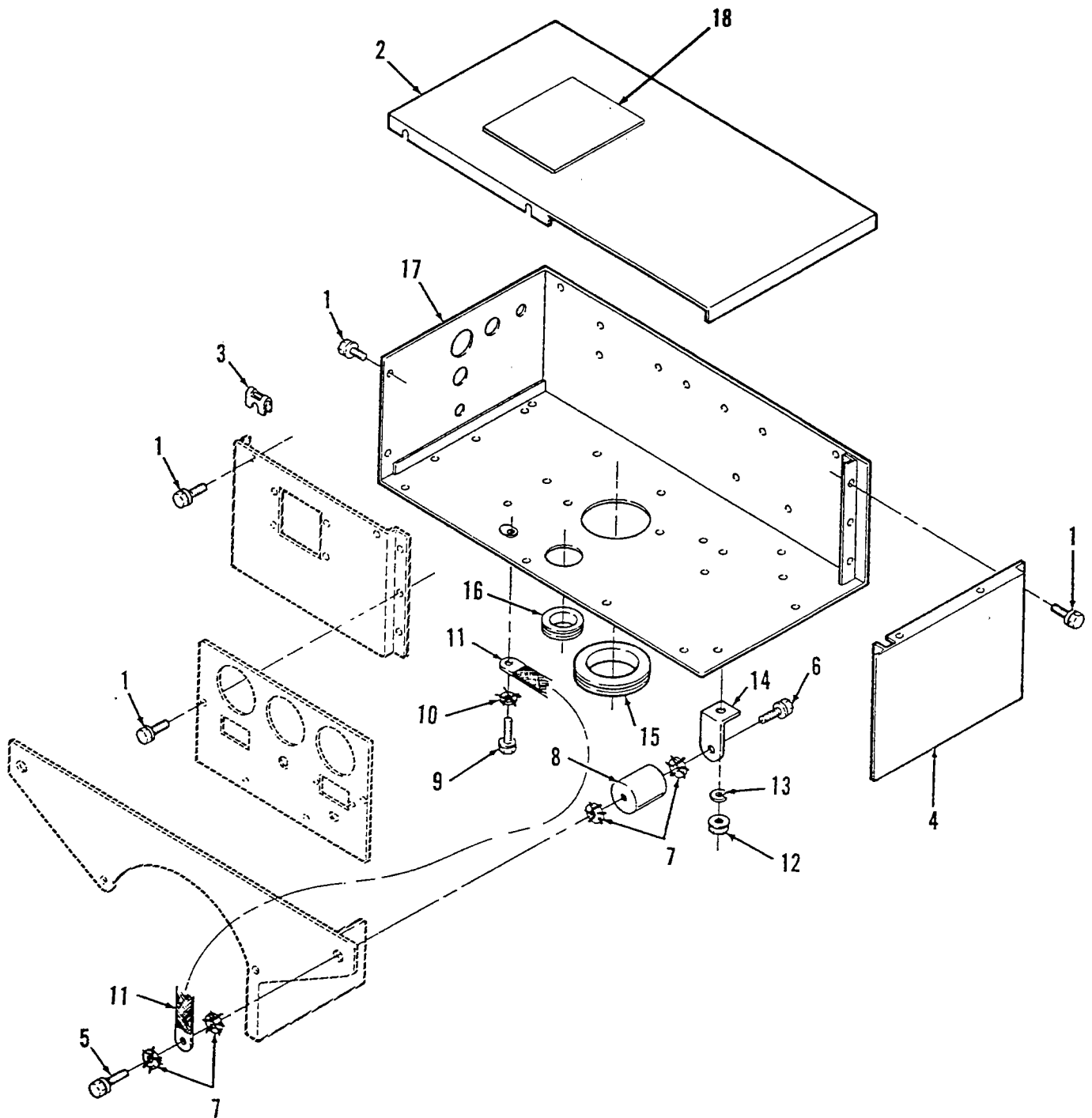




# Set Control

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	338-2029	1	Harness, Wiring - Control (Includes Relay K14)	17	320-1141	1	Breaker, Circuit (CB12)
2	821-0004	1	Screw, Self-locking - Hex (#10-32 x 5/16")	18	302-0885	1	Meter, Totalizing - Time (M11)
3	307-1886	1	Relay (K14)		815-0385	2	Screw, Machine - Round Head - Cross Recessed Drive (#6-32 x 1/2")
4	305-0703	1	Suppressor, Voltage (RV21)		870-0183	2	Nut, Hex with ET Lock Washer (#6-32)
5	332-1564	2	Lug, Terminal	19	193-0352	1	Gauge, Pressure - Oil (M12)
6	815-0544	4	Screw, Machine - Round Head - Cross Recessed Drive with IT Lock Washer (#6-32 x 1/2")	20	193-0351	1	Gauge, Temperature - Water (M13)
7	300-2604	1	Board, Monitor - Engine (A11)	21	302-1641	1	Meter, Volt (M14)
8	821-0004	4	Screw, Self-locking - Hex (#10-32 x 5/16")	22	308-0852	1	Switch, Rocker (S11)
9	315-0652	1	Transformer, Regulating - Voltage (T21)	23	301-9713	1	Panel, Control
10	815-0346	1	Screw, Machine - Round Head with IT Lock Washer (#10-32 x 5/8")		301-9714	1	No Meter Holes Three Meter Holes
11	305-0696	2	Bridge, Rectifier (CR21)+(CR2)	24	815-0544	1	Screw, Machine - Round Head - Cross Recessed Drive with IT Lock Washer (#6-32 x 1/2")
12	812-0063	4	Screw, Machine - Round Head (#6-32 x 1/2")	25	518-0437	1	Clip, Hold Down
13			Breaker, Circuit (CB22)	26	301-8454	1	Tray, Control
	320-1692	1	60 Amp, S.P. (Volt Code 1R)	27	821-0012	1	Screw, Self-locking - Hex (1/4-20 x 1-1/8")
	320-1693	1	80 Amp, S.P. (Volt Code 1R)	28	526-0052	4	Washer, Flat - Brass (1/4")
	320-1691	1	40 Amp, 2 Pole (Volt Code 3R)	29	856-0006	2	Washer, Lock - EIT (1/4")
14			Panel, Breaker	30	871-0016	3	Nut, Hex - Brass (1/4-20)
	301-8918	1	Use with S.P. Circuit Breaker	31	821-0008	2	Screw, Self-locking - Hex (1/4-20 x 5/16")
	301-8568	1	Use with 2 Pole Circuit Breaker	32	526-0018	2	Washer, Flat (1/4")
15	321-0146	1	Fuse (10 Amp) (F11)	33	850-0040	2	Washer, Lock - Spring (1/4")
16	321-0175	1	Holder, Fuse	34	332-2370	2	Standoff, Insulating - Hex

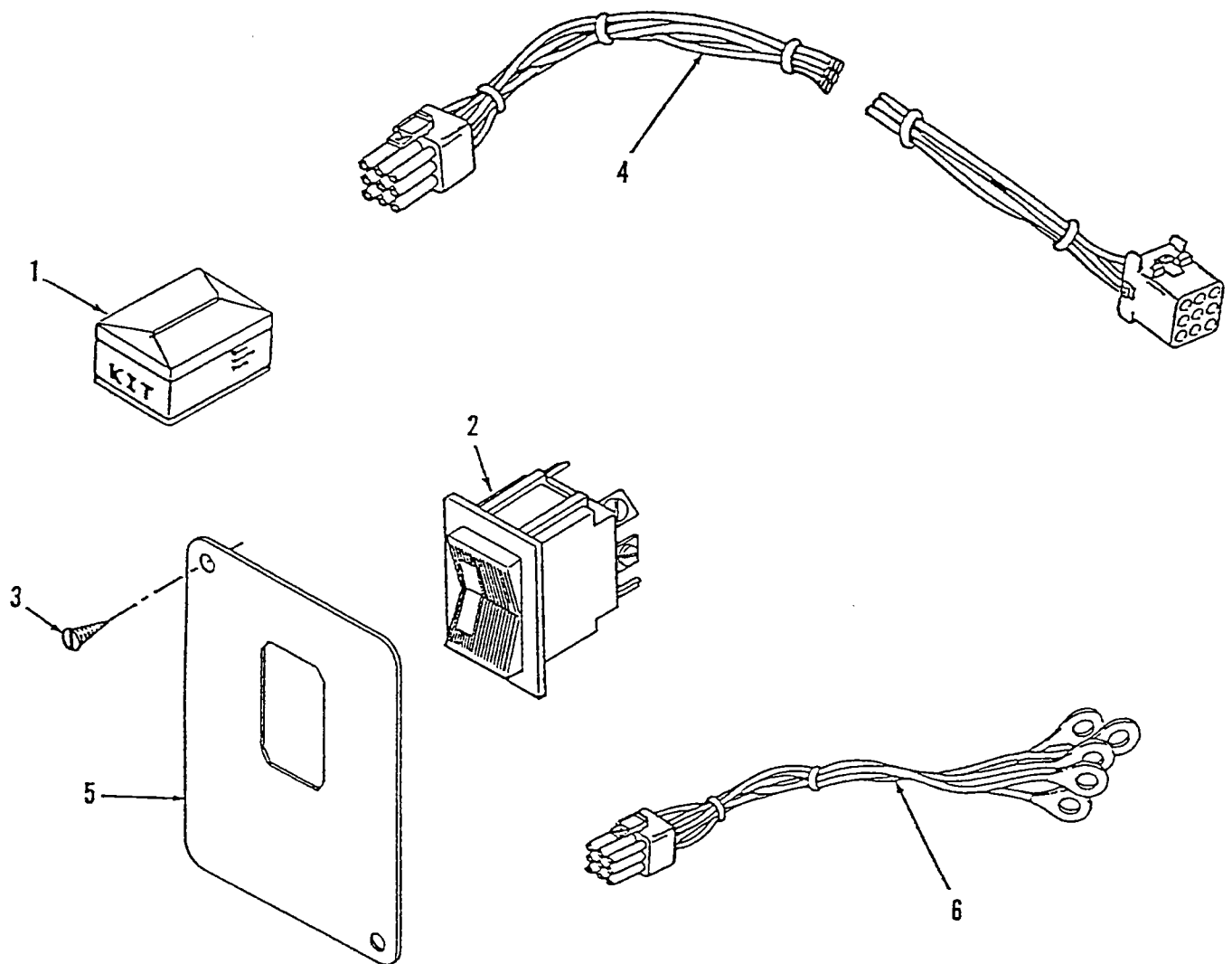
# Control Box



# Control Box

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	815-0544	16	Screw, Self-locking - Hex (1/4-20 x 5/8")	10	856-0008	2	Washer, Lock - EIT (5/16")
2	301-9857	1	Cover	11	337-2312	1	Strap, Electrical - Ground
3	870-0398	6	Nut, Retaining	12	870-0257	4	Nut, Self-locking - Hex (5/16-18)
4	319-0001	1	Panel, End	13	850-0045	4	Washer, Lock - Spring (5/16")
5	821-0016	1	Screw, Self-locking - Hex (5/16-18 x 3/4")	14	301-9719	4	Bracket
6	821-0014	7	Screw, Self-locking - Hex (5/16-18 x 1/2")	15	508-0115	1	Grommet
7	856-0008	8	Washer, Lock - EIT (5/16")	16	508-0117	1	Grommet
8	402-0070	4	Mount, Vibration	17	301-8453	1	Box, Control
9	821-0014	1	Screw, Self-locking - Hex (5/16-18 x 1/2")	18			Decal, KW Rating
					98-5651	1	Standard, 9 KW
					98-3759	1	Bayliner, 6.5 KW

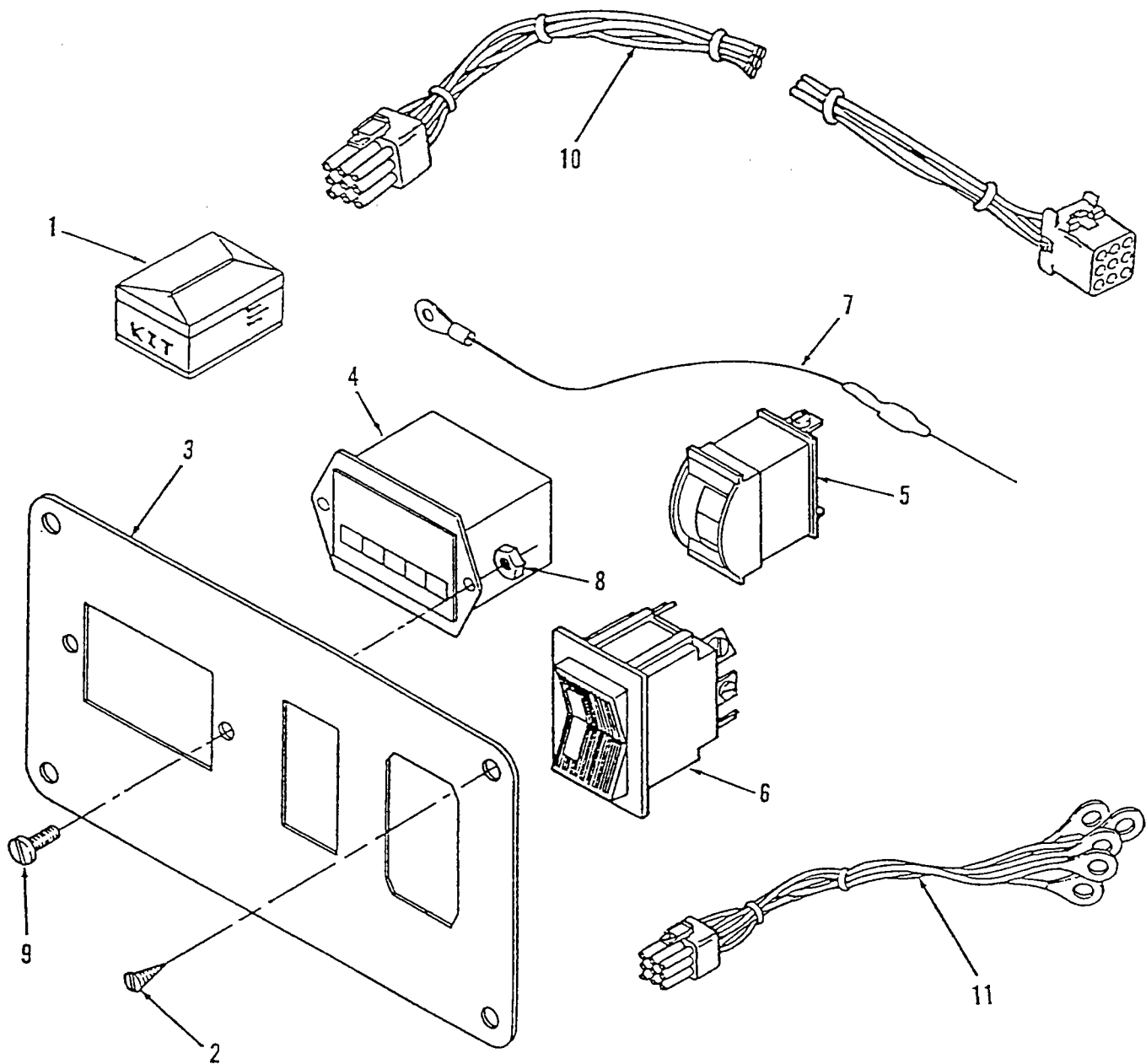
## Remote Control Panel (Basic)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	300-3468	1	Panel Kit, Control - Remote (Includes Parts Marked *)
2	308-0827	1	*Switch, Rocker
3	815-0380	2	*Screw, Wood - Oval Head Cross Recessed (#5 x 1/2")
4			Harness, Wiring
	338-2237	1	Fifteen Feet
	338-2238	1	Twenty-Five Feet

REF NO.	PART NO.	QTY USED	PART DESCRIPTION
5	319-0491	1	*Panel, Control (Does Not Include Front & Back Decals)
	98-5946	1	Decal, Panel - Rear
	98-5949	1	Decal, Panel - Front
6	338-2362-01	1	Harness, Wiring - Remote Control Panel

## Remote Control Panel (Deluxe)



REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
1	300-3467	1	Panel Kit, Control - Remote (Includes Parts Marked *)	6	308-0827	1	*Switch, Rocker
2	815-0380	4	*Screw, Wood - Oval Head, Cross Recessed (#5 x 1/2")	7	359-0034	1	*Diode and Lead Assembly
3	319-0492	1	*Panel, Control (Does Not Include Front & Back Decals)	8	870-0183	2	*Nut, Hex (#6-32)
	98-5944	1	Decal, Panel - Rear	9	815-0385	2	*Screw, Machine - Round Head (6-32 x 1/2")
	98-5946	1	Decal, Panel - Front	10	338-2237	1	Harness, Wiring Fifteen Feet
4	302-0885	1	*Meter, Totalizing - Time		338-2238	1	Twenty-Five Feet
5	302-0888	1	*Meter, Condition - Battery	11	338-2362-01	1	Harness, Wiring - Remote Control Panel

## Labels and Paint

REF NO.	PART NO.	QTY USED	PART DESCRIPTION	REF NO.	PART NO.	QTY USED	PART DESCRIPTION
			Label		98-5397	1	Warning (Explosion - Back Fire; Use Spark Arrester)
98-5981		2	Battery Negative		98-5651	1	Model Identification (ONAN 9.0 Marine Genset)
98-2899		1	Warning (Battery Cable Disconnecting)		98-6009	2	Model Identification (ONAN 8.0 Marine Genset)
98-4325		1	Warning (Explosion - Gasoline Vapors)		98-5757	1	Warning (Hazardous Voltage)
98-4827		1	Battery Positive		98-5777-01	1	Warning (Fuel Primer Lever)
98-5338		1	Warning (No Step)				Paint
98-5347		1	Warning (Danger - High Voltage)		525-0529	1	White (13 Oz. Aerosol Can)
					518-0452	1	Sealant, Thread (50cc Bottle)

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320-1141	47	502-0300	20	526-0029	22	802-2117	22
320-1568-06	47	502-0917	24	526-0029	27	812-0059	29
320-1570-03	47	502-0917	29	526-0052	47	812-0063	47
320-1570-05	47	502-0976	20	526-0115	20	813-0102	30
321-0146	47	502-1020	20	526-0115	23	813-0102	31
321-0175	47	502-1024	30	526-0196	31	813-0112	45
322-2370	47	502-1025	30	526-0338	30	813-0117	29
332-1024	27	503-0976	27	526-2060	37	814-0181	31
332-1564	47	503-1136	13	526-2060	39	815-0300	27
337-0049	43	503-1136	27	526-2080	25	815-0340	32
337-2312	49	503-1138	27	526-2080	32	815-0340	35
338-2028-01	43	503-1142	27	526-2080	35	815-0340	37
338-2028-02	43	503-1168	27	526-2080	37	815-0346	47
338-2029	47	503-1513	27	526-2121	25	815-0380	50
338-2237	50	503-1514	27	800-2002	37	815-0380	51
338-2237	51	503-1515	27	800-2029	17	815-0385	47
338-2238	50	503-1526	27	800-2029	32	815-0385	51
338-2238	51	503-1527	27	800-2029	35	815-0544	47
338-2362-01	50	503-1537-01	30	800-2029	43	815-0544	49
338-2362-01	51	503-1537-02	30	800-2031	25	815-0592	29
338-2458-01	43	503-1537-03	30	800-2031	32	815-0636	20
338-2458-02	43	503-1601	27	800-2031	35	815-0655-01	45
338-2503-01	43	503-1693	39	800-2033	20	815-0670	23
338-2503-02	43	504-0092	11	800-2033	27	815-0676-01	45
357-0067	43	508-0115	49	800-2034	32	821-0004	39
359-0034	51	508-0117	49	800-2034	35	821-0004	47
370-4023-01	20	508-0276	23	800-2034	37	821-0008	47

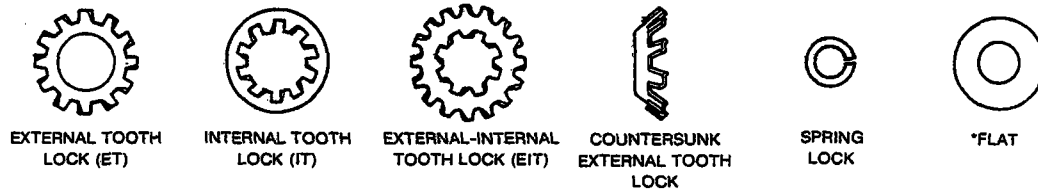
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821-0014	30	870-0131	35				
821-0014	49	870-0131	37				
821-0016	49	870-0131	39				
850-0020	29	870-0131	45				
850-0030	29	870-0183	47				
850-0030	43	870-0183	51				
850-0040	47	870-0212	37				
850-0045	32	870-0257	31				
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850-2006	17	871-0016	47				
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850-2008	9						
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860-2008	27						
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# HARDWARE IDENTIFICATION

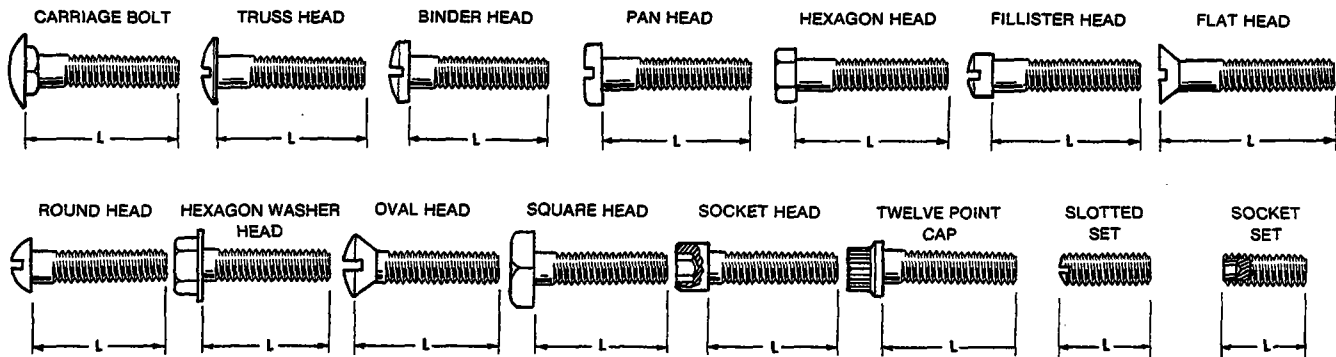
Illustrated hardware items are only for identification purposes. All hardware items listed throughout this parts catalog are steel SAE grade five (5) or lower (zinc plated with clear chromate dip) unless parts description indicates differently. All dimensions are in inches.

## WASHER TYPES



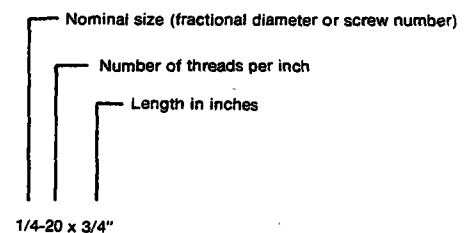
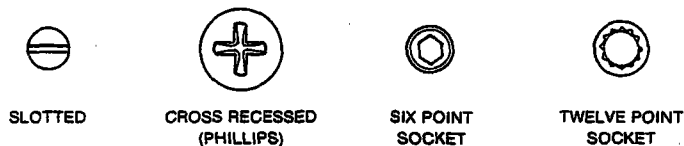
\* - Flat washer dimensions given are: Inside Diameter (ID), Outside Diameter (OD) and Thickness (Thk).

## BOLT AND SCREW TYPES



L - Measure length between these points.

### INTERNAL DRIVE TYPES



## NUT TYPES





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